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The CPI and Problems of Quality Change

Medical Expenses and Choice of Plans

Work Injuries and Recovery—II

Report on Legal Developments Under LMRDA

UNITED STATES DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS



UNITED STATES DEPARTMENT OF LABOR

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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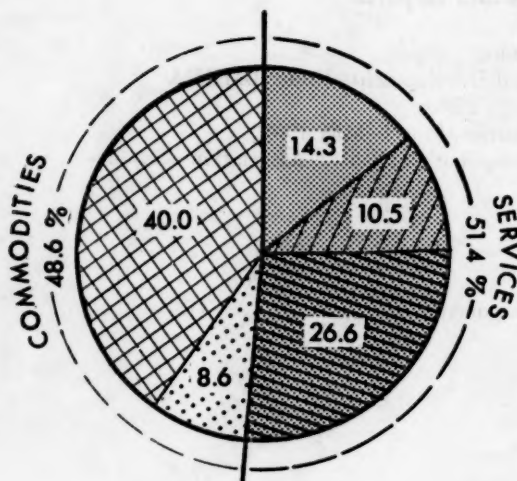
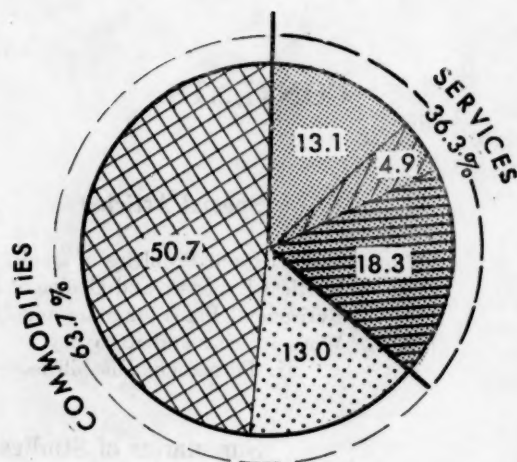
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Quality Change and the CPI

In every dollar of family expenditures represented in the CPI, services account for only 36 percent



But services have caused more than half of the increase in the CPI since December 1955

| | | | | |
|-------------|----------|-----------------------------|-----------------------|-----------------------------------|
| Nondurables | Durables | Rent and household services | Medical care services | Transportation and other services |
|-------------|----------|-----------------------------|-----------------------|-----------------------------------|

These charts provide some perspective for the assessment of the effects of quality change on the CPI in the article on pp. 1175-1185 of this issue. For example, durable commodities and medical care, where quality changes have occasioned the most troublesome problems in measuring price changes, accounted for less than a fifth of either the expenditure weights or the price rise. The article also outlines the procedures for handling quality changes in the index and illustrates their application. In addition, it describes what is being done to improve the techniques for identifying and dealing with quality changes.

The Labor Month in Review

AGREEMENT TO A NEW 3-YEAR CONTRACT between the Chrysler Corp. and the United Automobile Workers on November 2, a scant hour before a strike deadline, completed basic contract negotiations between the union and major auto manufacturers. In most respects, terms of the Chrysler settlement corresponded with those agreed to earlier with General Motors and Ford. Important differences are that the current wage increase is not retroactive to September 1 (although the money thus saved is earmarked for certain job security benefits) and 3 rather than 2 cents (as at Ford and General Motors) of the first year's annual wage increase are given up. On October 30, the UAW announced ratification of the Ford agreement by the local unions affected. A few days later, the Kenosha (Wis.) local of American Motors workers, largest in the company, reversed by a 2-1 vote its earlier rejection of the contract. Dissatisfaction with a reduction in pay for time not worked plus a light vote had caused the previous adverse action.

A brief strike by the UAW against the Peoria plant of Caterpillar Tractor Co., involving about 12,000 workers, was ended on November 6. Settlement terms, which followed the general outline of the automobile contracts, were expected to end walkouts at four smaller plants of the company. In mid-October, a similar agreement without a strike had been reached, covering 32,000 employees of International Harvester plants.

Job security safeguards of unusual stringency were provided in an agreement reached on October 29 after 3 years of bargaining between the Southern Pacific Railroad and the Order of Railroad Telegraphers. Mediation efforts of Secretary of Labor Arthur J. Goldberg and National Mediation Board Chairman Francis A. O'Neill, Jr., helped to avert a scheduled strike by the 946 telegraphers then employed by the railroad. Terms of the settlement establish a job ceiling of 1,000 which may be reduced by not more than 20 per year and then only if necessity is proved and vacancies

exist as a result of attrition. In effect, all fulltime employees under the ceiling may work steadily until they wish to leave. Those on the "extra" list—now numbering 124—are guaranteed 40 hours work or pay per week. Future new hires will be guaranteed at least 60 percent of their regular pay for 5 years if their jobs are abolished. Job reductions resulting from new central traffic control systems and line abandonment are not subject to the 2-percent limitation, but incumbents are to be offered jobs elsewhere on the Southern Pacific.

UNDER PROVISIONS of the Railway Labor Act, President Kennedy on November 1 created an emergency board whose investigation will automatically halt for at least 60 days a strike called by the Air Line Pilots Association against Trans World Airlines. On November 10, a second board was named to handle a similar dispute with Pan American World Airways. Work rules and flying hours are the contentious issues. Earlier, the President's airlines commission, appointed last February, again recommended that the ALPA and the Flight Engineers International Association declare an armistice in their dispute over job cockpit rights and ultimately merge their organizations. It also suggested that several airlines presently employing four cockpit crewmen on turbo-jets gradually reduce the number to three. The affected airlines have endorsed the proposal which would have the third member—the flight engineer—pilot-trained.

Clarence Sayen, president of the ALPA, announced on October 31 that he intends to resign within the next year. He has led the union since 1951, but recently has been subject to membership criticism because of failure to resolve successfully the organization's strike against Southern Airways and to achieve reduction in worktime in the TWA and Pan American negotiations.

A special board appointed by the Secretary of Labor met with union and management representatives on October 31 to explore the knotty problem of union representation on "flag of convenience" ships (American-owned vessels of foreign registry with foreign crews) which constituted a major issue in the maritime strike last summer. Creation of the board was instrumental in settling the strike. Maritime unions claim that the vessels are so registered to evade the higher stand-

ards prevalent on American ships. In actions related to the matter, the Seafarers' International Union on October 22 announced issuance of a charter covering 6,000 maritime workers in Trinidad; a day later, the National Maritime Union outlined a program of cooperation with maritime labor groups in the Caribbean area and Central America.

REPRESENTATIVES of telephone workers affiliated with the International Brotherhood of Electrical Workers in late October voted to press for passage in Congress of a Communications Labor Act patterned after the Railway Labor Act. IBEW president Gordon M. Freeman, commenting on the suggestion, said, "I can think of no better way of celebrating the 70th anniversary of our founding . . . than by pressing for the same type of legislation as has been of so much benefit to our railroad members." The Communications Workers of America, the union with most members in the telephone industry, decided against seeking such a law some years ago.

The CWA in October sent 10 local union officers and district staff members to the University of Chicago for 250 classroom hours of survey courses in subjects ranging from accounting to anthropology. Joseph A. Bierne, president of the union, told the group, first in a series of trainees, that the purpose of the college-level training was to "develop critical judgment" and to "understand the great maps of life and the traditions of a free society." On-the-job training for 4 months under senior staff members will complete the course.

INCREASED DUES for members of the International Brotherhood of Teamsters, ordered by the recent convention of the union, were upheld in Federal court on October 26. Some locals of the organization had charged violation of the Landrum-Griffin Act in voting the increase, scheduled to take effect on January 1. The union did not fare so well in another action in October. It lost overwhelmingly in a representation election among more than 1,700 milk delivery drivers in Cincinnati. On November 2, the dissident group was given an AFL-CIO Federal charter.

James R. Hoffa, Teamster president, on October 23, filed a \$1 million libel and slander suit in Federal court against AFL-CIO President George Meany and 24 other officers of the Federation.

His complaint accused the defendants of a "vicious, calculated, and calloused attack" against the reputation of the union and its president. Conspicuously omitted from the suit were AFL-CIO council members Walter P. Reuther, David McDonald, A. Philip Randolph, and William McFetridge. Oddly, Joseph Curran, an invited speaker at the Teamster convention last July and a supporter of readmission of the union of the AFL-CIO, was included in the suit.

David McDonald, president of the United Steelworkers of America, though spared in the Hoffa suit, was named in another: Donald C. Rarick, sometime aspirant to the presidency of the Steelworkers, on October 23 sued in Federal court to void the 1961 election of McDonald. Technically, he is reopening a previous suit claiming that nominating procedures in the union are contrary to Landrum-Griffin Act provisions. A Federal court ruling 2 weeks earlier had held that the union's nominating procedures for district directors were deficient.

In the field of criminal law, Mr. Hoffa was reindicted in Florida on a charge of using the mails to fraudulently promote a land development deal with union funds. He pleaded not guilty along with his codefendant, Robert E. McCarthy, Jr., a Detroit banker. On October 30, Rolland B. McMaster, secretary-treasurer of Mr. Hoffa's home local in Detroit, was indicted under the Taft-Hartley Act for taking payments illegally from an employer. Jointly indicted, as the employer, was William F. Wolff, Sr., of Youngstown, Ohio. Earlier in October, another official of the same local had been indicted on like charges.

AT THE REQUEST of the Secretary of Labor, President Kennedy on November 10 appointed a six-member panel of experts from outside the Government to review the methods used by the Federal Government in compiling employment and unemployment statistics. Recent "public discussion has demonstrated a great lack of public understanding on this subject and much misinterpretation of the statistics themselves," the Secretary stated in a letter to the President. He urged creation of the panel because "it is essential that the public have complete confidence" in these figures. Robert A. Gordon, chairman of the department of economics at the University of California, will head the group.

The CPI and Problems of Quality Change

ETHEL D. HOOVER*

EDITOR'S NOTE.—*This article carries on the discussion of quality change and price indexes—a topic which has recently generated unusual interest among both technicians and policy-makers. The Review's coverage of the subject has included technical notes in the issues for May and September 1961. It will carry additional articles dealing with this matter from time to time.*

CHANGES FROM TIME TO TIME in the qualities of goods and services available in consumer markets raise the most persistent and complex problems in the measurement of price changes. Potentially, the definition and measurement of quality change could always have been the most controversial elements in the construction of the Consumer Price Index but actually were not until the outbreak of World War II. Index number literature had been focused primarily on theoretical questions of how to measure the "true" cost of living and the implications of alternate formulas. Practical measurement problems involved in translating theory into practice, particularly as they relate to quality change, evoked relatively little attention, except from agencies or individuals responsible for producing indexes.

Wartime dislocations in consumer markets drew active public attention to quality changes and other problems in price change measurement. Use of the Consumer Price Index as an administrative tool in the wage and price stabilization program stimulated detailed scrutiny by industry, by labor, by government, and by the public.

During the war, the issue on quality change was the extent of quality deterioration and its effect on the index. The controversy that fol-

lowed the adoption in 1942 of the "Little Steel Formula" (which linked wages to the index) led to the first systematic evaluation and estimate of the effect of quality changes on the CPI. This study was made by a group of technical experts appointed in March 1944 by the chairman of the President's Committee on the Cost of Living. Although the evidence this unbiased group could find to assign values to quality change was quite tenuous (then, as now), a very important point was made in the final report. It was stated that most of the evidence presented by critics was largely in the form of "opinions," but that the character of the evidence was less important than the critics' "failure to consider it in conjunction with BLS pricing procedure."¹

The President's Committee and a Special Committee of the American Statistical Association, which had been appointed in 1943 to appraise the CPI, made a number of recommendations to strengthen the index.² But neither one recommended that the Bureau of Labor Statistics change its method of pricing and calculating the index. Both committees concluded that the index understated the wartime price rise to some extent because of a number of factors, of which incomplete account of quality deterioration was only one.

The President's Committee, through its subcommittee of technical experts, estimated that the 23-percent rise in the CPI from January 1941 to December 1943 was understated by 3 to 4 percentage points (this was later increased to 5 points to include the period from January 1941 to September 1945). In addition to quality deterioration (which was estimated to account for about half of the understatement), this allowance covered the disappearance of cheaper consumption items (trading-up), a decline in special sales, underreporting of rents, and an increase in underreporting of prices actually charged.³

In the immediate postwar period, interest was focused primarily on the sharp price rises that followed price decontrols and the quality change

*Of the Division of Prices and Cost of Living, Bureau of Labor Statistics.

¹ *Report of the President's Committee on the Cost of Living* (Washington, Office of Economic Stabilization, 1945), p. 332; also see pp. 351-352.

² The technical committee of the President's Committee also suggested that "the BLS index might well be given another name" (*ibid.*, p. 22) to avoid confusion with popular notions of *cost of living*. Accordingly, the name of the index was changed from the commonly used designation "Cost of Living Index" to "Consumers' Price Index" in August 1945.

³ *Ibid.*, pp. 12-13.

issue practically evaporated. In 1949, when prices seemed to be relatively stable, BLS embarked on a program of revising the index. During this revision, several recommendations of the President's Committee and the Special Committee of the ASA were incorporated. Among them were: Additional qualities for a number of items were priced, the sample of cities for the revised index included representation of the smaller communities, and store samples were reviewed and enlarged in some cases, particularly for food prices.

Recently, the quality change problem has again come to the forefront, following a report early this year⁴ by the Price Statistics Review Committee of the National Bureau of Economic Research, appointed at the request of the Bureau of the Budget. This committee, in reviewing the CPI, placed particular emphasis on the measurement problems associated with quality changes, especially in connection with its proposal for a "welfare" index, as contrasted with the current price index. The committee made some suggestions on approaches for both the pricing and processing stages, with a strong recommendation that funds be made available for continuing research on this subject. Some statisticians and economists have picked up the idea of quality appreciation and have carried it to the point of raising questions as to whether the CPI should have increased at all in recent years. To the best of our knowledge, none of the questions rests on a systematic consideration of the interaction between quality appreciation and the mechanics of collecting prices and calculating price changes for the CPI.

A 5-year program is now in progress that will lead to a revised Consumer Price Index in January 1964. The measurement problems arising from quality changes in consumer goods and services constitute one of the important aspects of the construction of the CPI being given great emphasis in this revision. BLS is acutely aware of these problems. Its current procedures were specifically designed to offset the effect of quality change in measuring price change. Since they are the takeoff point for future work, a review of the procedures and their application was considered necessary. The results of the review will be published as soon as possible.

In the meantime, as a basis for public understanding of the current and future work, this

article describes the present pricing and processing procedures pertinent to the quality change problem. It also discusses types of quality and variety changes occurring among consumer items and how the problems they present are faced currently in calculating the index, and gives some perspective on the quality change problem in the total CPI. Finally, it sketches the probable direction of the Bureau's work on quality questions in the immediate future. The main emphasis throughout is on current methodology, although the implications of the conceptual structure and sampling of qualities are touched upon.

Procedures

The Consumer Price Index, or any other index for that matter, has significance only insofar as its concepts are translated into actual operations. The concept of the CPI requires measures of price changes for goods and services of constant or equivalent quality. But in the real world, the BLS and other price index makers are confronted with the problem of obtaining such data in a market in which changes occur frequently in kinds of goods and services, in qualities, and in terms of sale. To cope with this paradoxical situation, the BLS has adopted a definition of quality and has set up practical pricing procedures to guide the selection of qualities priced and processing techniques to minimize the effect of quality changes in the measurement of month-to-month price changes.

Quality Definition. It is axiomatic that no one definition of quality will ever be universally accepted. Quality judgments vary among individuals in a myriad of ways—with needs, desires, income, training, environment, to name a few. Some of the factors in these judgments refer to the physical makeup, some to anticipated durability, others to styles, fashions, and similar intangibles.

Quality is defined by the Bureau in terms of "physical characteristics," that is, those distinctive features which are major determinants of price and those which differentiate one particular variety from all other varieties of the same article or service. In practice, this definition allows the

⁴ *Government Price Statistics, Hearings before the Subcommittee on Economic Statistics of the Joint Economic Committee (87th Cong., 1st sess., Jan. 24, 1961), Pt. I.*

Bureau to observe or identify differences in the article or service on which price quotations are obtained, as they occur from time to time. It thus provides a means of alerting the staff to the need of ascertaining how much of the difference in quoted prices is attributable to quality differences and how much to price change for comparable quality.

Specification Pricing. At each major revision of the CPI, the first step for pricing is the selection of a sample of the goods and services purchased by the families on whose expenditures the index weights are based. For each of these selected items, the next step is the sampling of the qualities purchased, in order to represent the quality levels associated with the family expenditures reported in the base period. The third step is the development of complete descriptions or "specifications"⁵ of the selected qualities which a field representative can use to secure prices for the specific item described.

Specifications, as now used by the BLS, are fairly detailed descriptions of the qualities of the commodities and services in the CPI. These descriptions are derived not only through pricing experience, but also with the continued assistance and cooperation of producers, retailers, and others. As indicated, the specific features included for each item are those which are major determinants of retail price and those which are distinctive to the particular quality described. Some features are indicative primarily of production costs or of service or function performed, while others reflect consumer acceptance or demand and other influences not closely related to cost.

In practice, a single precise specification for each item would seldom provide the price data necessary to calculate the CPI. The types and qualities of the various goods and services offered for sale are not the same in all cities because of variations in climate, income level, tradition, or other factors governing consumer choices. Moreover, within a city, families generally may choose from many qualities and types of items.

To provide for pricing in many places and to take account of the great diversity in the market, a fairly elaborate system of alternate specifications and allowable differences has been evolved. For some items, the specifications make allowance for choices by expressing some features as ranges. Insofar as possible, the limits of these ranges are set so that quality differences among products falling within the range are relatively minor. Another device adopted is a system of "regular" and "alternate" specifications for many items, particularly for apparel and furniture. A regular specification is priced throughout the country if possible. When this is not possible, alternate choices for pricing are provided, either as a choice in the regular specification or as an alternate specification, depending on the degree of difference from the regular specification. In most cases, the alternate choices are priced in all stores in a specific city. In addition, arrangements are made to allow pricing of specifications applying only to specific cities or stores. All of these devices have proved useful in providing for the introduction of new varieties and qualities into the index as they become important in the market.

Because of the difficulties inherent in the development of complete descriptions, specifications are supplemented by other aids to quality recognition, such as informative materials from the manufacturer and lists of brands illustrative of the quality described. In addition, field representatives are given thorough training in the recognition of qualities of goods and services before pricing is undertaken.

In applying these specifications, prices are obtained for the brand and make of product or for the service meeting the specification that sells in largest volume in each store. This specific product or service is priced in succeeding periods as long as it represents a significant volume of sales (i.e., as long as it is available in the usual assortment of sizes, colors, styles, and similar factors that indicate the item is up-to-date merchandise selling in volume). When another product or service has clearly become the volume seller, a substitution is made. If the substitute falls within the range stated in the specification, it is considered the same quality as the former product and is priced in succeeding periods. If not, pricing is shifted to an alternate specification⁶ or an individual description applicable to a given

⁵ For a discussion of the role of specifications and an example of how quality levels were determined in the most recent revision, see *Average Retail Prices, 1955-54—Collection and Calculation Techniques and Problems* (BLS Bull. 1182, 1955), pp. 7-13.

⁶ If a new volume seller is not described by an alternate specification in existence, and the product is becoming important in a number of cities, a second alternate specification is developed for use in all cities, as required.

city or outlet is recorded, whichever is appropriate.

For a few items in the index, specification pricing in the usual sense is not employed. Rent comparisons from one period to the next are made on identical dwellings, with changes in the sample of dwellings made at scheduled intervals to include proportionate representation of new dwellings. For home purchase, average transaction prices for broadly defined classes of houses are compared from period to period. A similar procedure is followed for used cars. For meals away from home, menus are obtained from each eating place in the sample, and prices for identical meals are compared for successive dates.

Standard Processing Methods. Three basic methods are used by BLS in calculating price changes from period to period:

1. *Direct comparison*—that is, dividing the price in the current period by the price in the preceding period. This method assumes that qualities are identical or that quality differences in the two periods are insignificant.

Simple direct comparison is used to measure price changes from one period to the next for a major proportion of the items in the CPI. All of the items for which prices in two successive periods are on the same brand or variety, as well as substitutions of other brands or varieties that fall within the ranges of qualities defined in the specifications, are handled by this straightforward comparison.⁷

2. *Linking*—that is, tying a price measure based on a new or different quality to the preceding one by factoring out the difference in price. This method requires prices for both qualities for at least one date. The old quality measures price change up to the date of introduction, and the new variety from that date forward. This method assumes that the full difference in price on the date for which prices of both varieties are available is the value of the quality difference.

Linking is the method used most frequently when problems of quality change are involved. The frequency of its use depends on the rapidity of major shifts in sales volume from one priced quality or variety to another and on the number of cases for which explicit valuations of quality differences are not available.

⁷ In a few cases, brands are not considered interchangeable; see p. 1182.

3. *Adjustment for quality difference*—that is, reducing or increasing the price in the current period by the value of the quality difference (equipment, content, size, or other factors for which a value can be estimated) and then comparing the adjusted current price directly with the price of the former item in the preceding period. This method is used when the price difference is due to both quality change and price change and it is necessary to separate the total difference into two parts, that due to the quality difference and that due to price change. In the following period, the new variety or quality including the different features is then linked into the index. Thus, the full computation requires both direct comparison and linking.

Direct comparison after explicit adjustment for differences in equipment or other quality factors is used for relatively few commodities and services, but they represent a significant proportion of the CPI. The most important items for which this procedure is used regularly are automobiles, gas for heating and cooking, hospitalization insurance, and contract rents.

The three methods of computing price changes are illustrated in the following tabulation:

| | Base period | Period 1 | Period 2 |
|--|-------------|---|--|
| 1. DIRECT COMPARISON | | | |
| Reported price..... | \$1.59 | \$1.89 | \$1.69 |
| Price relative ¹ | | $\frac{\$1.89}{\$1.59} \times 100 = 118.9$ | $\frac{\$1.69}{\$1.59} \times 100 = 89.4$ |
| Price index ² | 100.0 | 118.9 | $\frac{118.9 \times 89.4}{100} = 106.3$ |
| 2. LINKING | | | |
| Reported price: | | | |
| Quality A..... | \$5.00 | \$5.50 | ----- |
| Quality B..... | ----- | 4.00 | \$3.50 |
| Price relative ¹ | | $\frac{\$5.50}{\$5.00} \times 100 = 110.0$ | $\frac{\$3.50}{\$4.00} \times 100 = 87.5$ |
| Price index ² | 100.0 | 110.0 | $\frac{110.0 \times 87.5}{100} = 96.2$ |
| 3. ADJUSTMENT FOR QUALITY DIFFERENCE | | | |
| Reported price: | | | |
| Quality A..... | \$2.00 | ----- | ----- |
| Quality B..... | ----- | \$3.00 | \$3.30 |
| Value of quality difference between B and A..... | | .25 | ----- |
| Price relative ¹ | | $\frac{(\$3.00 - \$0.25)}{\$2.00} \times 100 = 137.5$ | $\frac{\$3.30}{\$3.00} \times 100 = 110.0$ |
| Price index ² | 100.0 | 137.5 | $\frac{137.5 \times 110.0}{100} = 151.2$ |

¹ Ratio of price in one period to price in preceding period, in percentage terms (i.e., ratio $\times 100$).

² Ratio of price in one period to price in base period, in percentage terms (i.e., ratio $\times 100$). In the calculation of the CPI, an index is derived by multiplying the index for the preceding period by the price relative then dividing by 100.

Examples of Problems

Ranges of Qualities and Varieties. Many of the goods and services priced for the CPI remain practically unchanged in quality (and often in price) over a year or more. Minor alterations of one form or another may take place but these do not affect the calculation of the CPI until or unless they change the article or service enough that the altered quality falls outside the range stated in the specification.

A casual reading of the specifications for some of the more complex items might lead to the erroneous impression that the ranges are too wide to define only minor quality differences. This stems from the Bureau's use of associations of quality characteristics whenever possible. If a hidden quality factor which can be obtained only from the producer is associated with another quality factor which can be observed or is known by price reporters, both are included in the specification by defining the one which can be observed.

Mattresses are one example of this association of features. Some advertisements imply that the greater the number of coils, the higher the quality. However, producers informed us that mattresses with 220 to 510 coils provide about the same degree of support, since the gage of wire is varied from heavy for 220 coils to light for 510 coils, and consequently the specification allows this range.³ One example of substitution permitted under this specification follows. In one large city, the May 1961 price for a mattress with 312 coils—which had been the volume seller—was \$50.95. At the next quarterly pricing in August, the price for another brand was reported which the retailer said was "comparable to the May item, but more of a special purchase." The mattress reported for August had 510 coils and was priced at \$34.65. The two prices were compared directly and the reduction of \$16.30 was reflected in the index.

Another example of direct comparison within a wide range for a specific feature is a 2-piece living room suite. The following tabulation shows reports for a 2-piece suite of specified quality in one

city for February and May 1960, the time of year when substitutions are frequent, as stores offer new stock after the major furniture shows.

| Type of covering: | Store 1 | Store 2 | Store 3 | Store 4 |
|--------------------------|----------|----------|----------|----------|
| February 1960..... | Frieze | Frieze | Frieze | Nubby |
| May 1960..... | Frieze | Frieze | Frieze | Pile |
| Overall length (inches): | | | | |
| February 1960..... | 77 | 84 | 76 | 84 |
| May 1960..... | 87 | 84 | 76 | 84 |
| Length of platform: | | | | |
| February 1960..... | 60 | 72 | 63 | 60 |
| May 1960..... | 59 | 72 | 63 | 60 |
| Suite price: | | | | |
| February 1960..... | \$279.95 | \$279.00 | \$259.50 | \$309.95 |
| May 1960..... | \$259.95 | \$259.00 | \$259.50 | \$298.00 |

¹ Substitution.

² Substitute item on sale.

The change of 10 inches in overall length of the sofa in store 1 fell within the size range in the specification and was associated with a change in style—from Lawson to Modern. Since style was not considered a quality determinant (both were listed in the specification for identification purposes) and the difference in platform length was negligible, prices for the two suites were compared directly. In no instance was there reason to question the retailers' choices of comparable suites for price reporting, and the index reflected the average decrease of 2 percent.

For some furniture items, the size ranges specified are acceptable as guides for the selection of priced articles in order to represent available varieties in stores, but substitutions are subject to some controls in processing. For a bedroom suite, for example, a range of 4 inches in length is specified for dressers and chests. However, since differences in their size are fairly closely correlated with differences in price for the suite, a difference of no more than 2 inches is allowed for direct price comparison when a substitution is reported within a store. For one bedroom suite, a price of \$293.98 was reported for March 1961 and \$230 for a substitute item in April 1961. The agent's description indicated that both the dresser and chest for the \$230 suite were 4 inches shorter than the \$293.98 suite. Since the differences were greater than the 2-inch tolerance limit for direct comparison, prices from this store were omitted for April and the price change was calculated using data for other reporting stores. Prices from this store were linked back into the index in the following period.

Changes in Relative Sales Volume. Another situation which occurs quite frequently, particularly with changes in income, is a pronounced shift in

³ Other factors determining the quality of mattress—and included in the specification—include type of border, method of tying coils, type and weight of cover, and materials used as padding over the spring unit. With the current trend to providing choices of degrees of support under the same brand name, the association of gage and number of coils is under review.

the proportionate volume of production or sales among the available qualities and varieties. One solution would be wide application of the linking process, namely, to secure prices for the full range of varieties available and make continuous chain indexes, with different weights to combine varieties for each link of the chain. Limited resources make this possible solution unrealistic for many items in the index, and the Bureau prices the qualities and varieties sold in greatest volume. For some items, several qualities or types must be selected to measure price changes. Examples are: Men's suits, two qualities for year-round wear and two for summer wear; women's dresses, one for winter, one for summer, two for year-round, and one housedress; and cigarettes, two types. For a large number of items, only one quality or variety is priced to represent the whole range of quality available in the market, e.g., diapers; men's pajamas, undershirts, and shorts; women's skirts, nightgowns, slips, and panties; toothpaste, shampoo, and many other toiletries.

When there are shifts in sales volume, the original selection may not only be difficult to find in the stores but it is also less likely to be a fair representation of price change for all available varieties. The usual method of shifting to new volume sellers is to price the old and the new concurrently for several periods and then to link the new one into the index when the former volume seller no longer represents a significant proportion of sales. When these shifts occur, the linking procedure is used, on the premise that since both varieties have been selling for some time, the difference in price established by the market is likely to be a fair approximation of the value of the quality difference.

Often, the changeover to a new volume seller is made in some cities or stores before the formal issuance of a new specification through authorization of "outlet" or "citywide" differences. As additional stores and cities stock this variety in increasing volume, a new specification is prepared and agents can shift from the old to the new volume seller automatically, with the timing depending on the particular city situation.

Such a shift occurred for gas stoves. For many years, stoves with regular ovens accounted for the major portion of sales. Matchless ovens, which were available even before World War II, began to grow in sales volume in the midfifties. They were introduced into the index in the first city in

TABLE 1. DISTRIBUTION OF MANUFACTURERS' SALES OF SELECTED APPLIANCES, BY TYPE, 1950, 1955, AND 1960

| Product | Percent of total number of units sold | | |
|-----------------------------------|---------------------------------------|------|------|
| | 1950 | 1955 | 1960 |
| TV (black and white)..... | 100 | 100 | 100 |
| Table or portable..... | 42 | 57 | 59 |
| Console..... | 52 | 41 | 37 |
| Radio-phonograph combination..... | 6 | 2 | 4 |
| Radios ¹ | 100 | 100 | 100 |
| Home..... | 83 | 41 | 31 |
| Portable..... | 17 | 28 | 45 |
| Clock..... | 0 | 31 | 24 |
| Washing machines..... | 100 | 100 | 100 |
| Automatic and semiautomatic..... | 39 | 71 | 77 |
| Wringer and spinner..... | 61 | 29 | 23 |
| Electric ranges..... | 100 | 100 | 100 |
| Free-standing..... | 100 | 88 | 56 |
| Built-in..... | 0 | 12 | 44 |
| Toasters..... | 100 | 100 | 100 |
| Automatic..... | 84 | 91 | 94 |
| Nonautomatic..... | 16 | 9 | 6 |
| Food mixers..... | 100 | 100 | 100 |
| Standard..... | 92 | 80 | 26 |
| Portable..... | 8 | 20 | 74 |

¹ 1951 data. Breakdown not available for 1950.

² Domestic production instead of sales.

SOURCE: *Electrical Merchandising Week*, Annual Statistical and Marketing Issues, January 18, 1960, and January 23, 1961 (New York, McGraw-Hill Publishing Co.), pp. 34-35 and 44-45, respectively.

February 1956 and in several additional cities during the next year. In October 1957, a new specification was issued incorporating this construction feature, and pricing was instituted in additional cities as an alternate to the regular oven. In processing the prices, the shift was made by linking. The implicit estimates for quality differences linked out of the index were usually between \$25 and \$35 (e.g., \$217 for matchless oven versus \$187 for regular in one city, and \$185 compared with \$150 in another). Stoves with regular ovens continue to be priced in several small cities because they are still important there.

Addition of New Qualities or Varieties. For most soft goods and for some durables, the usual type of market change in recent years has been the appearance of new qualities or new varieties without the immediate displacement of the old. These goods are usually "substitutable" for existing varieties, although there is sufficient demand for the older varieties that they do not disappear or do so only after a considerable length of time.

As in the case of changes in sales importance among existing qualities, the two problems of

timing and method of introduction of new varieties must be faced. New qualities and varieties are introduced into the index when sales of the new represent a significant proportion of sales and the older products priced are no longer available in the usual assortment of sizes, color, styles, etc. The new ones are introduced by linking, again making the implicit assumption that the value of the quality difference between the two products is measured by the difference in their prices at the time of introduction.

The postwar history of appliances offers many illustrations of gradual changes in the sales of old and new types, as shown in table 1. For example, the pricing of washing machines during 1955, 1956, and 1957 was shifted city by city from a wringer type machine (8-9 lb. capacity) to a fully automatic type (same capacity), as automatics grew in importance locally. The prices of the automatics were usually \$100 or more higher than the wringer types. Through linking, the difference in the average prices for each city at the time pricing was shifted was used as the value of the quality difference. That is, in Boston, the average for the wringer machines was \$124.95 and for automatics, \$226.62 in July 1955. The difference of \$101.67 was not taken as an increase in the index. Differences factored out in five other large cities were: Chicago, \$138.24 and Detroit, \$76.27 in June 1957; Los Angeles, \$124.39 in July 1956; Seattle, \$125.50 in May 1955; New York, \$131.32 in January 1955. The use of the linking procedure thus implied that the quality of the automatic washing machine introduced into the index was almost 100 percent greater than the wringer type.

The introduction of imported and domestic compact cars into the American market is another well-known illustration of changes in major types available. Changes in the proportionate importance of the various types of cars are indicated in the following tabulation:

| | Percent of total number of cars | | | |
|------------------------------|---------------------------------|------|------|------|
| | 1967 | 1958 | 1959 | 1960 |
| Domestic production: | | | | |
| Standard size cars..... | 94 | 87 | 76 | 67 |
| Compact cars..... | 1 | 4 | 13 | 26 |
| Imports (all size cars)..... | 5 | 9 | 11 | 7 |

SOURCE: Based on *Ward's Automotive Reports* and U.S. Department of Commerce data as given in Technical Note: Compact Cars in the Consumer Price Index, *Monthly Labor Review*, May 1961, p. 519.

* Technical Note: Compact Cars in the Consumer Price Index, *Monthly Labor Review*, May 1961, pp. 519-523.

Beginning with the 1961 model year, domestic compact cars were linked into the index, in addition to standard size cars. This method was employed because analysis of the comparability of the quality characteristics of compacts and standard models for earlier years did not provide a basis for direct comparison of current and historical models.⁹

These drastic changes in importance between major types of home appliances and automobiles have been matched in apparel and some of the textile housefurnishings, as special finishes have been employed and as manmade fibers have been used increasingly, either alone or in combination with natural fibers. In 1959, provision was made in a number of apparel and cotton yard goods specifications for pricing "wash and wear" finishes in those cities and stores where sales volume warranted it. Most of these new varieties were linked into the index, but in some cases, the price of the new was the same as the price of the old when sales of the newer one had reached significant proportions. Direct comparisons were taken in these cases, thus assuming that the old and new varieties were equivalent quality.

Uniformity of price occurred frequently for "wash and wear" finishes for some types of garments. In one city, for example, three stores reported the same prices for wash-and-wear business shirts in October as they had for regular finish in September, and approximately the same prices as other stores reported for regular finish shirts in October. Similar price uniformity occurred for most other finished garments. Wash-and-wear blouses and percale yard goods, however, were usually higher than regular finish. A woman's wash-and-wear blouse was \$3.50 in one store in February 1960, compared with \$2.99 for regular finish in January. This 51 cents was linked out and not taken as a price change. In New York in July 1960, the wash-and-wear blouse was \$3.98 and the regular finish had been \$2.98 in June 1960. Although a value of \$1 for the finish seemed high, the full amount was eliminated from the price comparison. For percale yard goods, the usual differential reported in 1959 was 10 cents per yard, which was also linked out. These finishes represent quality improvements that have not measured up to consumers' expectations in some cases. Recently,

another process was introduced that is claimed to provide real "wash and wear." Sometimes changes introduced as quality improvements have not turned out to be real improvements from the point of view of the consumer.

Nowhere has the introduction of new varieties and types been more dramatic than in the case of drugs and medicines. Here, the problems were complicated because many of the new medicines had no counterpart at earlier dates. Although new drugs and medicines were linked into the index in July 1960, it was not done by the usual item-by-item process. Instead, a new sample of drugs were selected and weighted together with data representing sales importance in 1960. The new drugs were substituted for the old sample by linking. The importance of all drugs combined in the all items CPI was not changed when the substitution was made.¹⁰

Discontinuity of New and Old Qualities. We come now to those cases of quality difference where the possibilities of inexact measurement of price change attract most attention—that is, the complete discontinuance of one quality or variety before a new one appears. To bridge the gap created by such discontinuities, a detailed feature-by-feature comparison of the two products is made and one of two procedures is then followed if possible.

The first procedure is to identify those differences in features which fall within the definition of quality change and, using all pertinent information, to approximate the current value of the quality changes. These values are then used to adjust the current price before making price comparisons, as in example 3 on p. 1178.

The second procedure is followed when explicit valuations of the quality difference cannot be made. In these cases, the detailed comparison of the various features leads to a choice of the model or variety that is most nearly similar to the discontinued one. Direct comparison of prices of the old model and the most nearly similar new model are then made without adjustment for quality change.

Neither of these two procedures can be used in a few exceptional cases. If the new model or quality is radically different from the old, and if there is no reasonable basis for adjustment of quality difference, the linking process is used.

To estimate a price of the old article on the date the new one is introduced, the assumption is usually made that the price of the old article, if still available, would be the same as the last reported price. If the last reported price was a sale price, the price difference would be an overestimate of the value of the quality difference.

The best known examples of discontinuity are durable goods, such as automobiles and appliances, for which it is usual to clear old models out of stock each year in anticipation of the receipt of new models. Price changes to the dealer are usually timed by the producer to coincide with the introduction of new models.

Because of the complexity of the durable goods products and the diversity of features employed and advertised by each manufacturer to differentiate his product from competitive ones, the attempt to measure price change on comparable old and new models is an approximate rather than a precise process. The quality differences between the old and new models are found by reference to "specification sheets" or "feature selling guides" provided to dealers by manufacturers, and by additional information furnished directly to the Bureau by the producer.

To avoid spurious price increases and decreases that could result from specification pricing in its usual sense, the Bureau has placed two conditions on price comparisons for automobiles and appliances. The first is that the comparisons from one period to the next must be made on products of the same manufacturer. The second is that the similarity of quality as shown by feature comparisons, *not* the line and model name or number assigned by the manufacturer, governs the choice of models to be priced.

The calculation of price change is relatively simple when the quality change consists of the addition or deletion of equipment or accessories for which there is an established retail price or for which a retail price can be readily estimated by comparison with other models in the producer's line. Engineering changes that increase or decrease the essential properties of the product are, however, more difficult to evaluate. In the absence of independent evaluations, the Bureau uses costs or approximate retail values, now provided by some producers, to assist in making ad-

¹⁰ For explanation of this substitution, see *Consumer Price Index: Price Indexes for Selected Items and Groups*, June 1960 (BLS, August 1960), p. 2.

justments for quality differences. In these cases, the quality differences may not be fully accounted for and the possible effect on the index is one of the subjects for study during the revision.

Automobiles are the outstanding example of a complex index item for which quality appraisals must be made, and the one most frequently cited in discussion of quality changes. Until the 1960 model year, adjustments were made only for features that were included in the price in one year but were extra-cost equipment in another. Beginning with 1960 models, some adjustments were also made for quality improvements resulting from safety or other structural engineering features. In one case, adjustments for equipment changes and certain other features amounted to \$382.95 from the model year 1955 to 1960.¹¹ The significance of the price effect of other differences in automobiles over these 5 years could not be determined.

Similar difficulties due to discontinuities are encountered in somewhat less intensive form for other items in the index. When the data gap occurs only for one store, it can be bridged by computing price changes for comparable qualities reported by other stores, but in a few cases, explicit adjustments are made for quality changes, as illustrated by hospitalization insurance and by beef.

When changes in rates for a particular hospitalization insurance contract are accompanied by changes in benefits, the rates for the current period are adjusted by the value of the change in benefits to compute price change. To illustrate: In September 1958, an increase of \$1.78 (from \$3.70 to \$5.48) in a family rate was put into effect. According to the insurer, 20 percent (or 36 cents) was due to increased benefits; 23 percent (41 cents) was due to higher claims incidence; and 57 percent (\$1.01) was due to higher costs. The index reflected an increase of 38.4 percent (from \$3.70 to \$5.12, thus excluding the 36 cents attributed to quality improvement) instead of the full change in the premium rate of 48.1 percent.

Retail stores normally carry either U.S. Choice or U.S. Good beef, but not both. When U.S. Choice prices are reported for one period and U.S. Good the next, prices for U.S. Good quality are adjusted by raising them by 8 to 10 percent,

depending on the particular cut involved. These estimates of the price differentials are based on the usual differences between grades at wholesale and retail for an earlier period. It seems preferable to use such adjusted prices than to omit all outlets which do not carry U.S. Choice beef consistently.

Examples of model changeovers without adjustment for quality differences are found most frequently among the major appliances. A comparison of models for the past 3 years for one make of refrigerator reveals little or no difference in equipment, finish, and type of refrigerant. Engineering features also changed little so far as we could determine, except for a reduction from $\frac{1}{2}$ hp. to $\frac{1}{4}$ hp. compressor. Size and capacity differences were relatively slight—an increase of 0.2 cu. ft. or less in net volume and frozen storage capacity, and less than 1 sq. ft. in shelf capacity. Shipping weight was lighter. The number of models offered remained the same in the 3 years. In this instance, and in all others where changes in characteristics were relatively small, the price change was measured by direct comparison of prices for the old and new models.

Direct comparisons were also used in the index for a changed automatic washer early this year. Last year's model was 10-pound capacity and the most nearly similar current year's model was 12 pounds. However, another feature was reduced in quality and it was assumed that the reduction roughly compensated for the increased capacity. In some cities, the introductory price for the new model was the same as the regular price of the old, while in other cities, the new model was as much as 10 percent lower.

Perspective on the Effect of Quality Change

The discussion to this point has related to quality change, and how price changes are calculated by the Bureau when quality problems arise. Emphasis on problems, however, should not obscure the fact that some CPI items have undergone no changes in quality for moderate periods of time and very little over long periods. Some CPI items have had only minor improvements. Haircuts are the same as they were 5 or 10 years ago. Many foods, such as fresh beef and pork, apples and potatoes, sugar and eggs, have been essentially the same for long periods of time. Changes

¹¹ Compact Cars in the Consumer Price Index, op. cit., p. 322.

in packaging these foods for retail sale provide conveniences from some points of view but have also given rise to some dissatisfactions on the part of the consumer. However, they do not alter the basic quality.

For some of the CPI items, there is a question as to whether quality has been maintained. Curtailed schedules and increased travel time by public transportation in many cities, particularly commuter travel from suburban areas, is quality deterioration to many people. The dissatisfactions expressed on maintenance and repair of automobiles and appliances suggest that quality improvements have not been general for these services. In the past few years, injections of water into some hams to increase moisture provide one example of a debatable quality change.

Table 2 lists some of the items in the index that have not been affected in any significant way by quality improvement. They illustrate the large blocks of the index weight that are not subject to overstatement of price change. The price increase for these selected items over the 5-year period 1955-60 is greater than the change in the total CPI.

TABLE 2. RELATIVE IMPORTANCE AND PRICE CHANGES OF SELECTED GOODS AND SERVICES, 1955-60

| [Percent] | | |
|--|---|-----------------------|
| Group and item | Relative importance in the CPI, December 1960 | Price change, 1955-60 |
| Total CPI..... | 100.0 | 10.5 |
| Selected commodities and services..... | 15.9 | 14.3 |
| COMMODITIES | | |
| Food: | | |
| Flour..... | .4 | 3.6 |
| Round steak..... | .6 | 17.7 |
| Bacon..... | .8 | -1 |
| Frankfurters..... | .7 | 17.8 |
| Apples..... | .3 | 10.9 |
| Oranges..... | .4 | 42.4 |
| Potatoes..... | .4 | 26.6 |
| Prunes..... | .1 | 18.4 |
| Sugar..... | .4 | 12.2 |
| Eggs..... | 1.3 | -6.0 |
| Other nondurables: | | |
| Solid fuels..... | .7 | 11.7 |
| Petroleum fuels..... | .5 | 3.5 |
| Aspirin..... | .2 | 9.1 |
| Milk of magnesia..... | .1 | 30.9 |
| Newspapers..... | 1.1 | 20.8 |
| SERVICES | | |
| Electricity..... | .9 | 4.8 |
| Drycleaning and pressing..... | 1.3 | 12.5 |
| Postage..... | .3 | 21.6 |
| Automobile repairs..... | 1.2 | 13.9 |
| Local transit fares..... | 1.3 | 21.6 |
| Railroad coach fares..... | .3 | 15.1 |
| Men's haircuts..... | .8 | 25.0 |
| Movie admissions..... | 1.8 | 22.1 |

TABLE 3. IMPORTANCE OF SPECIAL GROUPS IN THE MOVEMENT OF THE CPI, 1955-60

| Group ¹ | Relative importance in the CPI, December 1960 (percent) | Price change, 1955-60 (percent) | Contribution to 5-year change for all items ² (percentage points) |
|--|---|---------------------------------|--|
| All items..... | 100.0 | 10.5 | 10.5 |
| Commodities..... | 63.7 | 7.8 | 5.1 |
| Nondurables..... | 50.7 | 8.2 | 4.2 |
| Food..... | 28.5 | 7.9 | 2.3 |
| Other..... | 22.2 | 8.6 | 1.9 |
| Durables..... | 13.0 | 6.2 | .9 |
| New cars..... | 2.9 | 14.8 | .4 |
| Appliances ³ | 2.9 | -6.7 | -.2 |
| Other..... | 7.2 | 8.8 | .7 |
| Services..... | 36.3 | 15.6 | 5.4 |
| Rent..... | 6.2 | 8.8 | .5 |
| Household operation serv- ices ⁴ | 6.9 | 15.2 | 1.0 |
| Transportation services..... | 4.2 | 20.1 | .8 |
| Medical care services..... | 4.9 | 24.0 | 1.1 |
| Other services..... | 14.1 | 14.5 | 2.0 |

¹ The individual items included in these special groups are listed in the quarterly BLS publication *Consumer Price Index: Price Indexes for Selected Items and Groups*. This classification of items differs from that discussed in the technical note on pp. 1233-1236 of this issue.

² Estimated by using relative importance data for December 1955. (See *Monthly Labor Review*, May 1956, pp. 568-571.)

³ Includes radios and TV sets, in addition to household appliances.

⁴ Includes gas and electricity, laundry services, drycleaning, domestic service, telephone, postage, and water.

The net effect on the CPI of all the different kinds of changes in qualities and items that have occurred since the war and the Bureau's procedures in trying to take account of these changes is difficult to evaluate in quantitative terms. To put the quality problem in context, the total change in the CPI for the last 5 years has been divided, in table 3, to show the contribution made by the different classes of commodities and services.

From 1955 to 1960, the CPI for all items advanced by 10.5 percent. All commodities combined account for about two-thirds of the total index weight but contributed about half of the change in the CPI—5.1 points of the 10.5 percent. Services, which make up the remaining third of the index weight, also contributed about half of the price change—5.4 points. Within these two major categories, there was considerable diversity in the amount contributed by the subclasses, with appliances alone showing a reduction.

In recent years, major interest in quality changes has centered largely around durables and medical care services. As table 3 shows, these two categories account for less than one-fifth of the index weight and only 2.0 points of the total index change. Some of the quality changes for durables have been taken into account in the index through the adjustment and linking processes. The amount

not accounted for would have to be very large to have the durables affect the movement of CPI by significant amounts. For medical care, the great strides in the postwar years in medical procedures require a complete review and evaluation of current methods. It would be premature to venture comments on this group before several approaches to the problems are investigated during the revision period.

In summary, quality improvement has not affected all items in the CPI in recent years. Some of the BLS actions to take account of quality change have more than offset the effect of quality improvements. However, in some cases it is probably true that BLS does not factor out the total amount of quality improvement. The diversity of procedures followed by the Bureau makes the evaluation of the net effect of all quality and product changes on the total CPI an intricate and ponderous task, and virtually an impossible one. We find no evidence to support the argument that, because of quality improvements, the all items CPI has not properly reflected price trends in the last 5 or 10 years.

Studies Planned for the 1964 Revision

The Bureau's plans for work in connection with the current revision of the Consumer Price Index include the objective of developing a long-range, continuing research project on the quality change problem. This project was visualized as encompassing intensive study of the definition and recognition of "quality" changes, methods of evaluation, and appropriate index procedures for dealing with the diverse ways in which quality changes in consumer goods and services occur.

Initial work was governed by the fact that evaluation of quality changes essentially rests on item-by-item studies. A limited list of items was selected to represent specific problems, such as shifts in production or demand, introduction of

new or additional varieties, changes in qualities of existing items, and data problems associated with whether new qualities do or do not displace the old.

Research will be approached on three fronts for each of the selected items, simultaneously if resources permit. One study is a detailed history of how the specific items were handled in the index in the past 10 years, with a view of ascertaining the possible effect on the index. A second study will concentrate on the possibilities of improvements and refinements in the present methods of handling quality changes. This should provide us with a knowledge of how much additional specific data on quality can be obtained and incorporated in current processing. Improvements which may result from this study would be made a part of the revised index (to be released for January 1964).

The third and more important study for long-run use is the exploration of alternate methods of valuing quality changes, and the practicability of reducing them to routine use in current calculations. Three approaches were suggested in the report of the Price Statistics Review Committee:¹² multiple regression technique, use of a dominant characteristic as a measure of quality, and surveys to obtain consumer appraisals of comparative qualities. The technical implications and methods of securing the necessary data will be explored to determine whether the procedures suggested offer a potentially more useful longrun basis than alternate methods, or whether they would raise additional problems not foreseen at present. Although these three approaches were suggested in the context of a "constant utility" or "welfare" index, they may provide solutions to the measurement of price changes for equivalent quality encompassed in the concepts of the current CPI.

The possible effect of alternate definitions of quality on both the concept of the index and the techniques for handling quality changes will be a subject for continuing study. The problems of measuring the effects of quality changes in price indexes will not disappear.

¹² *Government Price Statistics*, op. cit., pp. 35-37.

Medical Expenses and Choice of Plans: A Case Study

BURTON WOLFMAN*

POTENTIAL CONSUMERS of health insurance wishing to make a rational choice of plans must ponder the question, which plan will best meet the needs of our family?

The answer is far from simple. There are few objective data concerning the economic effectiveness of individual health plans and no reliable means of predicting individual family medical expenditures. The family must evaluate the amount of the monthly premium in relation to its income and also the amount of coverage provided by a particular premium in relation to its medical needs. In addition, each family has personal preferences (or prejudices) as to the form in which medical services are provided, i.e., free choice of personal physician or group practice. In these circumstances, the family may base its decision on either economic considerations or personal preference, or some combination of both.

To obtain a clearer picture of the economic and personal considerations influencing family choice of health plans, a study was undertaken of the choices and the 1959 medical expenditures of the families of 200 trade union members—100 of whom had chosen one type of plan and 100, another.¹ The collective bargaining agreement under which they worked provided for a choice between the Northern California Kaiser Foundation Health Plan and a Blue Cross-Blue Shield plan.² The Kaiser plan provided, through group medical practice and its own facilities, hospitalization with complete surgical, physicians', and laboratory services; physicians' office services, including a full range of specialists, for \$1 per visit and physicians' home visits for \$3.50

(day) or \$5 (night and weekend); full prenatal and postnatal care, including delivery room services for \$60; and other laboratory and X-ray and diagnostic tests at no additional charge. The Blue Cross plan provided hospitalization (in any Blue Cross hospital), full hospital coverage for maternity and \$70 toward obstetrical fees, full surgical coverage and physicians' services while hospitalized (if member's income was less than \$6,000), and diagnostic laboratory and X-ray services. Thus, the families had to choose between comprehensive medical coverage with limited choice of attending physician or limited coverage with free choice of attending physician.

Family Characteristics

The economic status of families in both groups of 100, as measured by total family income, was similar (averaging about \$6,400 a year), but other aspects of the family were significantly different. Families choosing Kaiser had younger husbands and wives than families in the Blue Cross group; the respective median ages were 44 and 40 for husbands and 42 and 35 for wives. Moreover, there were more children in the Kaiser sample (174 compared with 133) and the children were younger (90 and 46, respectively, aged 6 or under).

The lower age of the heads of households in the Kaiser sample influenced their earnings, as distinct from total family income, which were somewhat lower than those heads of households in the Blue Cross sample. Finally, the Kaiser group included more nonwhite families (22 vs. 12), whose economic status was lower than that of the white families in the same sample. These nonwhite families were often composed of even younger husbands and wives who had larger families with more younger children than the white families in the same group.

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¹ This article is based on the author's master's thesis, submitted to the University of California in June 1961. The study on which it reports was financed by a grant from the university's Heller Committee for Research in Social Economics.

² The unit selected for study was covered by a national agreement and comprised 1,200 employees of the General Motors' Chevrolet assembly plant in Oakland, Calif., who were members of Local 1031 of the United Automobile Workers. About 25 percent of the employees were members of the Kaiser plan and the others belonged to the Blue Cross-Blue Shield plan.

TABLE 1. DISTRIBUTION OF MEDICAL EXPENDITURES¹ BY SELECTED FAMILIES UNDER TWO HEALTH PLANS IN OAKLAND, CALIF., 1959

| Amount of expenditure | Number of families | |
|----------------------------|--------------------|-----------------|
| | Blue Cross plan | Kaiser plan |
| All amounts..... | 100 | ² 99 |
| Less than \$200..... | 37 | 40 |
| \$200-\$299..... | 19 | 30 |
| \$300-\$399..... | 22 | 20 |
| \$400-\$499..... | 9 | 2 |
| \$500 and over..... | 13 | 7 |
| Average expenditure..... | \$312 | \$255 |
| Range of expenditures..... | \$93-\$1,646 | \$84-\$774 |

¹ Includes prepayment premiums, physicians' fees, hospital charges, laboratory and X-ray charges, the estimated cost of both prescription and household drugs (see footnote 2, table 2), and miscellaneous expenditures for such items as glasses and medical appliances; excludes cost of dental care.

² One respondent in this sample completed the interview but refused to disclose his expenditures for medical care other than the prepayment premium.

Medical Expenditures

Although the costs of the monthly prepaid premiums were higher for Kaiser families, averaging \$109 per year, compared with \$99 for Blue Cross families,³ their total out-of-pocket medical expenditures were substantially lower—only \$255 against \$312 (table 1). Thus, prepayment premiums accounted for more than four-tenths of the total medical expenditures of the Kaiser members but less than one-third of the total Blue Cross expenditures. When prepayment premiums were deducted, the average expenditure for medical care was 31 percent less for Kaiser families.

The expenditure distribution indicates that 70 percent of the Kaiser families spent less than \$300 during 1959 for all their medical care, compared with only 56 percent of the Blue Cross families. At the other end of the distribution, 13 percent of the Blue Cross families spent more than \$500 during the year for medical care but only 7 percent of the Kaiser families exceeded that amount. The maximum expenditure was \$1,646 in the Blue Cross group, and \$774 in the Kaiser group.

Expenditures for specific medical services, shown in table 2, further demonstrate the substantial differences in the costs of medical treatment under the plans. Blue Cross families paid more for each type of service except "other medical" (primarily the purchase of glasses).

³ The collective bargaining agreement called for the employer to pay 50 percent of the premium for employees and their dependents. The employee's cost amounted to \$88 a year for a 2-person family and \$98 for a 3-or-more person family under Blue Cross and \$84 for a 2-person family and \$118 for the larger family under the Kaiser plan.

For physicians' fees, they paid \$64, or 125 percent, more, on the average, than Kaiser families. (To eliminate the effect of different rates of utilization, these averages, unlike those for total expenditures, are based only on families reporting the specified expenditure, rather than on the entire sample.) For hospital charges, the Blue Cross families paid an average of \$78, or 166 percent, more than the Kaiser families. In both samples, the families spent approximately the same average amount for household drugs and laboratory charges. But for prescribed drugs, the Kaiser families fared better than the Blue Cross families, for they were able to purchase drugs from the Kaiser plan pharmacy at reduced rates. Thus, Kaiser families spent \$24, or 43 percent, less than the average for Blue Cross families.

Unit Costs. The differences in average expenditures do not adequately reflect the real differences because Kaiser members, even at lower overall costs, received more services from their plan. A more realistic estimate of the overall difference between the two plans is shown in table 3. From this table, we can infer that the Blue Cross families actually spent 43 percent more than the amount required to purchase the same services under the Kaiser plan. Stated in another way, for Blue Cross families to receive medical benefits comparable to those of Kaiser families, their effective insurance benefit package would have had to be increased by at least two-fifths. In part, this reflects the fact that less than 30 percent of the Blue Cross families had any part of their medical expenditures paid by the plan. By contrast, 24 percent of the Kaiser families indicated that they made expenditures for services that the plan would have covered, had they chosen.

Ratio to Family Income. Despite the higher costs of medical treatment experienced by Blue Cross members, total medical expenditures for the average family under either plan did not exceed 6 percent of income. Total medical expenditures accounted on the average for 5.3 percent of Blue Cross family incomes and 4.3 percent of Kaiser incomes. Excluding prepayment premiums reduces the percent of family income spent for medical care to 3.8 percent for Blue Cross families and to 2.4 percent for Kaiser families. Such figures cannot be considered excessive or particu-

larly burdensome for families whose average incomes were above \$6,000.

Few families in either plan had excessively large medical expenditures. However, almost twice as many families in the Blue Cross group as in the Kaiser group had medical expenditures amounting to 10.5 percent or more of income (table 4). Closer scrutiny of large medical expenditures by the Kaiser families who spent over 10.5 percent of their income for medical care revealed that most of them either did not or could not use all of the facilities offered by their plan; they consulted private physicians or had to enter a hospital outside the area. In each of the Blue Cross cases, there was at least one major illness or a chronic condition which the plan either did not cover or covered only in part.

Choice of Plans

Based on the evidence of family medical expenditures presented, we must conclude that the selection of the Kaiser plan would have been indicated by economic consideration. Nevertheless, 75 percent of the membership in this local union had chosen Blue Cross. What can we say about their reasons for doing so?

Although the families could not have anticipated precisely what effect their choice of a health plan would have on their medical expenditures,⁴ they could have discerned two objective differences between the plans with respect to the kinds and amounts of physicians' services offered. First, one covered physicians' care in the office

or home (at nominal fees) and in the hospital, and the other limited coverage to in-hospital treatment; and second, the method of organizing and providing medical services was group practice with choice of treating physician limited to members of the group in the one case and solo practice with free choice in the other. Both of these were important in the families' choice.

The most important single reason given by Blue Cross families stating their reasons for selection of plan was the opportunity of having free choice of their own physician and hospital, cited by 45 percent of these families. Among the Kaiser families, on the other hand, 82 percent explicitly stated that their choice of plan was determined by the cost and coverage benefits offered. Lengthy interviews with families in both groups, however, revealed a variety of other considerations underlying the responses.

Blue Cross. Despite wide variations in responses, the Blue Cross families fell into two types, designated in the study as "economic calculators" and "subjective selectors." The economic calculators, 63 percent, were those who had given some consideration to the economic implications of the choice of plans, whereas the subjective selectors, 37 percent, indicated no awareness or concern with the possible economic ramifications of their choice. For most of the families of the latter type, hostility to the other plan overshadowed other considerations.

⁴ The difference in the costs of the monthly premiums between the two plans was so slight that it cannot be considered as an important determinant.

TABLE 2. DISTRIBUTION OF EXPENDITURES FOR SPECIFIED TYPES OF MEDICAL SERVICE BY SELECTED FAMILIES¹ UNDER TWO HEALTH PLANS IN OAKLAND, CALIF., 1959

| Type of service and plan | Number of families reporting expenditure of— | | | | | Average expenditure | Range of expenditures |
|--------------------------------|--|----------|-----------|-------------|----------------|---------------------|-----------------------|
| | All amounts | \$1-\$49 | \$50-\$99 | \$100-\$199 | \$200 and over | | |
| Physicians' services: | | | | | | | |
| Blue Cross..... | 88 | 35 | 18 | 22 | 13 | \$114 | \$5-\$872 |
| Kaiser..... | 95 | 60 | 24 | 6 | 5 | 80 | 2-541 |
| Hospital charges: | | | | | | | |
| Blue Cross..... | 10 | 5 | 2 | 1 | 2 | 125 | 5-550 |
| Kaiser..... | 12 | 7 | 3 | 2 | — | 47 | 1-171 |
| Prescribed drugs: ² | | | | | | | |
| Blue Cross..... | 54 | 29 | 16 | 7 | 2 | 56 | 3-310 |
| Kaiser..... | 75 | 58 | 12 | 5 | — | 32 | 1-185 |
| Laboratory and X-ray charges: | | | | | | | |
| Blue Cross..... | 21 | 13 | 8 | — | — | 37 | 8-90 |
| Kaiser..... | 12 | 9 | 2 | 1 | — | 33 | 1-115 |
| Other medical services: | | | | | | | |
| Blue Cross..... | 27 | 21 | 5 | — | 1 | 45 | 2-400 |
| Kaiser..... | 30 | 21 | 7 | 1 | 1 | 47 | 2-400 |
| Household drugs: | | | | | | | |
| Blue Cross..... | 89 | 59 | 14 | 9 | 7 | 57 | 20-300 |
| Kaiser..... | 92 | 51 | 22 | 15 | 4 | 55 | 3-300 |

¹ Refers to the number of families actually reporting expenditures and therefore excludes families who may have received specified services at no out-of-pocket expense.

² Based on family estimates of drug expenditures, since lack of records made it difficult for them to recall precise expenditures.

TABLE 3. DIFFERENCE IN AVERAGE COSTS PER UNIT OF MEDICAL SERVICE¹ FOR SELECTED FAMILIES UNDER TWO HEALTH PLANS IN OAKLAND, CALIF., 1959

| Type of service | Blue Cross Plan | | | Kaiser Plan | | | |
|-------------------------------------|--------------------|------------------|-----------------------|--------------------|------------------|-----------------------|--|
| | Total expenditures | Units of service | Average cost per unit | Total expenditures | Units of service | Average cost per unit | Cost of Blue Cross units of service at Kaiser average cost |
| Prepayment premium..... | \$9,899 | 100 | \$98.99 | \$10,864 | 100 | \$108.64 | \$10,864 |
| Physicians' services..... | 10,040 | 1,318 | 7.62 | 4,798 | 1,803 | 2.66 | 3,506 |
| Hospital charges..... | 1,234 | 10 | 123.40 | 509 | 12 | 47.42 | 474 |
| Prescribed drugs ² | 3,038 | 99 | 30.69 | 2,398 | 163 | 14.71 | 1,456 |
| Laboratory and X-ray..... | 774 | 21 | 36.86 | 398 | 12 | 33.17 | 697 |
| Other medical..... | 1,215 | 27 | 45.00 | 1,421 | 30 | 47.37 | 1,279 |
| All services..... | 26,220 | | | 20,448 | | | 18,276 |

¹ The unit of service for prepayment premiums was the number of families; for physicians' services, the number of visits; and for hospital charges, laboratory and X-ray, prescribed drugs, and other medical, the number of individuals receiving care.

² See footnote 2, table 2.

The economic calculators attempted to make a rational decision based on the facts available to them. This does not necessarily imply that their decisions were economically sound or that they were sufficiently aware of all relevant factors. For example, an elderly couple may have felt that without children they would not need comprehensive services, but they may have neglected to consider the likelihood of large medical expenditures at their age. The economic calculators also included cases where the economic calculations may not have been decisive, but they did play a part. For example, families with higher incomes may have recognized that Blue Cross would result in larger medical expenditures because of less coverage and the income ceiling on certain benefits, but nevertheless decided that they were willing to pay more for what they considered to be higher quality care.

Thus, to some extent, the term "economic calculators" is a misnomer for this group of 63 families. In fact, most of them initially chose Blue Cross (38 families) or switched to it (12 families) because of their preference for more personalized treatment or an unsatisfactory experience with Kaiser, even though they expressed an awareness of the possible cost differences under the two plans. Indeed, 40 Blue Cross families thought that their expenditures would have been lower under the Kaiser plan. Because these families rejected what they considered an economic advantage in favor of free choice of physician, we might call them the "free choice rationalizers" (recognizing, of course, that some of these families also considered other factors, e.g., the national coverage of Blue Cross). The remaining 13 economic calculators were essentially ambiva-

lent about the free choice issue. After initially joining the Blue Cross because it afforded the opportunity of free choice, these families began to consider switching to Kaiser when the impact of high medical expenditures affected the family budget. This latter group we might call the "incipient changers."

The 37 families designated as subjective selectors seemed to have no concern with any cost consideration, not because they necessarily had the economic means to meet these costs but because another factor overrode such considerations. This was their hostility to the type of service they believed to be offered by the Kaiser plan. These impressions of the Kaiser plan sometimes came not from direct knowledge of the plan or even from the accounts of others, but from their own experience with other types of medical care they equated with Kaiser: that in the armed services, from welfare agencies, or in clinics for families with low incomes.

From table 5, it is apparent that the impact of medical expenditures on the family budget had clearly influenced the considerations of the incipient changers about the choice of plans. The medical expenditures of the free choice rationalizers and the subjective selectors, on the other hand, had not been unduly high.

To the extent that income, education, and age are indicators of social mobility, the subjective selectors would seem to be the most mobile and the most likely of these groups to have aspirations of upward mobility. Since they also expressed the strongest feeling about free choice, as we have seen, it might thus be argued that their selection of a medical care plan involved primarily social status considerations. Some of these families

TABLE 4. DISTRIBUTION OF MEDICAL EXPENDITURES¹ AS PERCENT OF FAMILY INCOME FOR SELECTED FAMILIES UNDER TWO HEALTH PLANS IN OAKLAND, CALIF., 1959

| Percent of family income | Number of families | |
|----------------------------|--------------------|-------------|
| | Blue Cross plan | Kaiser plan |
| All percentages..... | 100 | 99 |
| 1.0-2.4 percent..... | 20 | 28 |
| 2.5-4.4 percent..... | 29 | 35 |
| 4.5-6.4 percent..... | 29 | 22 |
| 6.5-8.4 percent..... | 9 | 6 |
| 8.5-10.4 percent..... | 7 | 5 |
| 10.5 percent and over..... | 6 | 3 |
| Average percentage..... | 5.3 | 4.3 |
| Range of percentages..... | 1-38 | 1-17 |

¹ For definition, see footnote 1, table 1.

² See footnote 2, table 1.

seemed to regard freedom of choice in medical care, like owning a home and a car, as a goal to which they aspired regardless of its economic merits. To be able to afford the opportunity of free choice appeared to be a symbol of economic and social independence—possibly a step upward from their previous circumstances.

Kaiser. While 82 percent of the Kaiser families, as indicated, said that their reason for joining the Kaiser plan was either lower cost or better coverage, they amplified the reasons for their choice during the interviews in terms of negative re-

actions to the Blue Cross plan. These responses must be considered against the background that 67 percent of the Kaiser families had previously belonged to Blue Cross (the only coverage available prior to 1950) and left it when given the opportunity of joining Kaiser. Kaiser members seemed to feel compelled to justify their choice and appeared to be defensive about their choice; possibly, in part, because Kaiser members are in the minority in the plant.

Another possible reason for this defensive feeling of the Kaiser members might be the apparent attitudes of the subjective selectors and the free choice rationalizers, who seemed to equate Blue Cross membership or free choice with higher social status or better quality care. The implication would be that Blue Cross members could afford to ignore the impact of family medical expenditures and thus be considered financially independent, able to afford more personalized care that they considered to be of higher quality.

On the other hand, it will be recalled that Kaiser families were larger (3.8 members versus 3.4 for the Blue Cross families), included more younger children, and might well expect greater expenditures, which in turn would be likely to have a greater impact on their family incomes. This by itself would be sufficient inducement to seek maximum health insurance coverage.

Conclusions

The findings of this study suggest three conclusions. First, for the family interested in obtaining the greatest quantity of medical care for the least expense, selection of the comprehensive Kaiser plan was clearly indicated. Second, despite strong sentiment in a given family for free choice of physician and individualized treatment, the cost of a health plan became paramount when high medical expenditures, actual or expected, threatened financial burdens for the family. Finally, although a major purpose of negotiated medical care plans is to reduce the workers' medical expenditures and thus raise their living standards, in choosing a health plan many of these workers subordinated cost considerations to subjective factors associated with health plan membership, including strong feelings of social class or status and the expectation of higher quality care.

TABLE 5. FAMILY CHARACTERISTICS OF 100 MEMBERS OF BLUE CROSS PLAN IN OAKLAND, CALIF., IN 1959, BY BASIC REASON FOR CHOICE OF PLAN

| Characteristic | Economic calculators ¹ | | | Subjective selectors ¹ |
|---|---------------------------------------|---------------------------------|--|-----------------------------------|
| | All economic calculators ¹ | Incipient changers ¹ | Free choice rationalizers ¹ | |
| Number of families..... | 63 | 13 | 50 | 37 |
| Average income: | | | | |
| All families..... | \$5,020 | \$5,091 | \$5,022 | \$5,741 |
| Families with incomes under \$10,000..... | 5,067 | 5,091 | 6,302 | 6,091 |
| Average medical expenditures ² | \$380 | \$451 | \$374 | \$352 |
| Median age of husband..... | 47 | 35 | 47 | 37 |
| Years of school completed by husband: | | | | |
| 8 years or less..... | 21 | 4 | 17 | 5 |
| 9-11 years..... | 20 | 3 | 17 | 11 |
| 12 years..... | 16 | 5 | 11 | 19 |
| Over 12 years..... | 6 | 1 | 5 | 2 |
| Average family size..... | 3.2 | 3.5 | 3.1 | 3.1 |
| Number of families of: | | | | |
| Two persons..... | 20 | 2 | 17 | 9 |
| Three persons..... | 21 | 4 | 17 | 11 |
| Four persons..... | 15 | 5 | 11 | 6 |
| Five or more persons..... | 7 | 2 | 5 | 11 |

¹ For definition of terms, see text, pp. 1188-1189.

² Includes cost of dental care as well as the items listed in footnote 1, table 1.

Retirement Plans for State and Local Employees

MARJORIE S. MUELLER*

"TO PROMOTE AND ESTABLISH broad and comprehensive disability and retirement plans for public employees which shall assure just standards of living"—this is one of the constitutional objectives of the American Federation of State, County and Municipal Employees (AFSCME).

Committed to the principle that retirement security is an important factor in the advancement of the economic, social, and general welfare of its members, AFSCME has striven over the years to promote desirable retirement legislation. At the same time, it has worked to foster and promote a liberal and progressive public attitude toward public administration and to promote efficiency in the public service generally through the establishment of a career service in government which will attract into public service trained and spirited young people interested in the public service as a career.

In terms of these objectives, what is the extent of coverage of State and local employees by retirement systems, how do retirement benefits measure up to living standards, and what are the shortcomings of public retirement systems?

Extent of Coverage by Retirement Systems

A total of 2,205 contributory retirement systems for employees of State and local governments, with a membership of more than 4 million persons, was reported in 1959 by the U.S. Bureau of the Census in its 1957 Census of Governments.¹ These systems were paying at the end of 1957 an average monthly benefit of \$116 to more than a half million persons. A small increase in the number of retirement systems operated by State and local

governments was reported in the 5-year period ending in 1957, as against a sharp increase in both the number and proportion of employees covered by such plans. The 147 retirement systems administered by State governments accounted for about three-fourths of the membership in all the State and locally administered systems. Nearly nine-tenths of the 2,058 locally administered systems are maintained by municipalities. Approximately 85 percent of all State and local government employees are covered by pension funds.

According to a report² by the U.S. Department of Health, Education, and Welfare, 647,000 beneficiaries of State and local retirement systems, as of June 30, 1960, were receiving an average payment of \$137 per month. Of these beneficiaries, 530,000 were receiving retirement benefits averaging \$132 per month, 55,000 were disability beneficiaries receiving an average of \$144 per month, and 62,000 were survivors receiving an average of \$94 per month. Retired State and local employees and survivors received about two-fifths of the total benefits paid in 1960 by all civilian and military retirement systems for Federal, State, and local government employees.

Before 1951, public employees were not eligible to participate in the Federal old-age, survivors', and disability insurance program. The American Federation of State, County and Municipal Employees had worked steadily since the early 1940's to obtain coverage under the Federal OASDI program for members of existing State and local government retirement systems. Under a 1950 amendment to the Social Security Act, State and local government employees not under public retirement systems became eligible for coverage at the option of the State government; and those who were under public systems became eligible for coverage under a 1954 amendment, also at the option of the State government and providing that the members of the system voted, by referendum, to accept coverage. Of the 6.3 million State and local government employees in January 1961, 3.8 million had OASDI coverage; 2.6 million had dual coverage, that is, coverage by both a State

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¹ *Employee-Retirement Systems of State and Local Governments* (U.S. Bureau of the Census, U.S. Census of Governments, 1957 (1959)).

² *Benefits and Beneficiaries Under Public Employee Retirement Systems, Calendar Year 1960* (U.S. Department of Health, Education, and Welfare, Social Security Administration, Division of Program Research, 1961).

or locally administered retirement system and the Federal program. Ohio is the only State in the Union in which there are no public employees covered by social security.³

For many years, retirement programs for State and local government employees were limited to special classes such as teachers, policemen, and firemen. Teachers and other school employee groups are still the largest special category groups.⁴ The trend during recent years, however, has favored the development and expansion of systems covering all public employees, and many special class systems have been absorbed into either general State or local programs or special statewide programs. OASDI coverage has stimulated the creation of new State investment-type retirement systems, where previously none had existed, and has aided the growth and expansion of older systems.

In 1961, 45 of the 50 States administered general coverage plans for State employees. (See table 1.) In addition, 31 of those States authorized participation by local governments on an optional or mandatory basis, while 10 States administered statewide retirement systems for local employees generally.

Kinds of Retirement Systems

In 1961, State employees in seven States were covered exclusively by State programs and in five States exclusively by the Federal OASDI program. The remaining 38 States had retirement systems combined in various ways with the Federal program. When coverage under the Federal system was adopted, 8 States provided no reductions in the allowances earnable under their State systems; 15 States modified their systems slightly, but in all cases, retirement benefits, when added to social security benefits, were substantially greater than the benefits earned under the benefit formulas of the systems prior to coordination; another 8 States integrated their systems with the Federal program and markedly reduced benefits payable under their State systems. Of the last group, Delaware and New Jersey now require an offset of the full amount of the social security benefit against the State allowance, Vermont requires only a partial offset, and the remaining States—Connecticut, Mississippi, Wyoming, and Hawaii—have greatly reduced benefits under their systems as a result of

integration with the social security system. Pennsylvania amended its retirement act in 1961 to permit State employees who retire after July 1, 1962, to elect to pay for dual coverage without any offset of social security benefit.

Another group of seven States—Alaska, Arkansas, Kansas, Kentucky, Missouri, Utah, and West Virginia—may also be considered to have systems of a coordinated type, although the combined benefits are not particularly liberal. These States established investment retirement systems for their employees several years⁵ after the employees had been covered by the Federal social security program.

Besides the cities which participate in State-administered plans combined with social security, hundreds of cities have adopted the OASDI program for their employees either in combination with existing local retirement systems or in lieu of such plans.

Methods of Financing

Most public employee retirement programs are financed through joint employer-employee contributions; in the majority of cases, employer contributions are equal to or exceed those of the employees.

Two principal methods are used to determine the amount of the employee contribution: (1) Employees, regardless of their age, on entering the system contribute a specified percentage of their salary through payroll deduction; and (2) employees contribute an amount actuarially determined to assure them of a fixed monthly benefit at retirement.

Continuing studies made by the AFSCME of State administered retirement systems covering State and local government employees disclose

³ *State and Local Government Employment Covered by OASDI, January 1961* (U.S. Department of Health, Education, and Welfare, Social Security Administration, Bureau of Old-Age and Survivors Insurance, Quarterly Statistical Report, released August 1961).

⁴ More than two-thirds of the members of limited coverage retirement systems are found in the school employee and teacher retirement plans that are administered, for the most part, by the States. Some States continue to maintain separate retirement systems for teachers and other school employees. Locally administered plans for school employees, once very popular, are now found mainly in a few large school districts and a few municipalities which administer public schools. The special retirement programs for policemen and firemen represent about three-fourths of all special groups plans but only slightly more than 8 percent of the membership covered by all systems.

⁵ Investment retirement systems were established in 1961 for public employees of Kansas, Utah, and West Virginia.

that the predominating percentage for employee contributions is 4 percent of salary for the plans which specify a percentage, plus the social security tax of 3 percent. Contribution rates lower than 4 percent, plus Federal tax, are called for by only a small number of plans; only one system requires a

rate of 6 percent, plus Federal tax. Systems not coordinated with the Federal social security system commonly require 5- or 6-percent contribution rates. In plans which do not specify a salary percentage, the rates vary with age, occupation, and sex.

TABLE 1. STATE ADMINISTERED RETIREMENT SYSTEMS FOR STATE AND LOCAL EMPLOYEES, BY EMPLOYEE COVERAGE, AND RETIREMENT SYSTEMS FOR STATE EMPLOYEES, BY SINGLE OR DUAL COVERAGE

| State | State retirement systems by employee coverage | | | Retirement systems for State employees by single or dual coverage | | | | |
|---------------------|---|--|--|---|------------------------------|---|---|--|
| | All State employees ¹ | All State employees and, by local option or mandate, local employees | Local employees by local option or mandate | State retirement system only | Federal social security only | State and Federal social security benefits combined | | |
| | | | | | | Full State and Federal benefits | Modified State benefit and full Federal benefit | State benefit integrated with Federal benefit ² |
| Total..... | 45 | 31 | 10 | 7 | 5 | 8 | 22 | 8 |
| Alabama..... | X | X | | | | X | | |
| Alaska..... | X | X | | | | | X | |
| Arizona..... | X | X | | | | | X | |
| Arkansas..... | X | X | | | | | X | |
| California..... | X | X | X | | | | X | |
| Colorado..... | X | X | | X | | | | |
| Connecticut..... | X | | X | | | | | X |
| Delaware..... | X | | | | | | | X |
| Florida..... | X | X | | | | | X | |
| Georgia..... | X | | | | | | X | |
| Hawaii..... | X | X | | | | | | X |
| Idaho..... | X | | X | X | X | | | |
| Illinois..... | X | X | | | | | X | |
| Indiana..... | X | X | | | | | X | |
| Iowa..... | X | X | | | | | | |
| Kansas..... | X | X | | | | | X | |
| Kentucky..... | X | | | | | | X | |
| Louisiana..... | X | | | X | | | | |
| Maine..... | X | X | | | | | | |
| Maryland..... | X | X | | | | X | | |
| Massachusetts..... | X | X | | X | | | | |
| Michigan..... | X | | X | | | | X | |
| Minnesota..... | X | | X | | | | X | |
| Mississippi..... | X | X | | | | | | X |
| Missouri..... | X | | | | | | X | |
| Montana..... | X | X | | | | X | | |
| Nebraska..... | X | X | | | X | | | |
| Nevada..... | X | X | | X | | | | |
| New Hampshire..... | X | X | | | | | X | |
| New Jersey..... | X | X | | | | | | X |
| New Mexico..... | X | X | | | | X | | |
| New York..... | X | X | | | | X | | |
| North Carolina..... | X | | X | | | | X | |
| North Dakota..... | X | | | | X | | | |
| Ohio..... | X | X | | X | | | | |
| Oklahoma..... | X | X | | | X | | | |
| Oregon..... | X | X | | | | | X | |
| Pennsylvania..... | X | | X | | | | | X |
| Rhode Island..... | X | | X | | | X | | |
| South Carolina..... | X | X | | | | | X | |
| South Dakota..... | X | X | | | X | | | |
| Tennessee..... | X | X | | | | X | | |
| Texas..... | X | | X | | | X | | |
| Utah..... | X | X | | | | | X | |
| Vermont..... | X | X | | | | | | X |
| Virginia..... | X | X | | | | | X | |
| Washington..... | X | X | X | | | X | | |
| West Virginia..... | X | X | | | | | X | |
| Wisconsin..... | X | X | | | | | X | |
| Wyoming..... | X | | | | | | | X |

¹ Insured-type retirement plans covering Employment Security personnel only have been made effective in Idaho, Oklahoma, South Dakota, and Utah. Such plans are pending in Nebraska and North Dakota.

² State retirement benefits are drastically reduced or offset by amount of social security benefits.

³ Investment retirement system established by the State for State employees, after social security coverage had been made effective.

⁴ For county employees only.

⁵ 1961 amendment to Pennsylvania State employees retirement law permits members who retire after July 1, 1962, to elect to pay for dual coverage without any offset of social security benefit.

Two methods of financing the retirement fund are generally used by government employers—the actuarial reserve method and the cash disbursement method. Under the first method, government employers make annual or biennial contributions sufficient to meet pension liabilities (based on an employee's length of service), which will mature in future years. Such contributions are flat percentage rates of total payrolls, but not necessarily the same percentage rates paid by the employees. Government employers using the second method appropriate funds each year sufficient to meet only current retirement benefit payments. Under this pay-as-you-go plan, contributions must, of necessity, be increased in later years as the number of retired persons increases. The actuarial reserve basis is generally the preferred financing method since annual costs are approximately the same from year to year. Most systems meet the requirement of funding or partially funding their retirement systems.

Types of Benefits

The types of benefits in the various retirement systems show a degree of similarity, although each system is custom made to meet the requirements of the employees and the wishes of the citizens through their elected representatives. A majority of the systems provide disability and death benefits as well as retirement benefits; some provide for reduced retirement benefits at early retirement ages.

Retirement Benefits for Age and Service. Retirement benefits are usually determined by either a money-purchase formula or a fixed-benefit formula. Under the money-purchase formula, the amount of an employee's benefit is actuarially determined from the amount accumulated in the retirement fund through employee and employer contributions, plus interest. Under the fixed-benefit formula, retirement benefits are usually related to "average salary" and years of service of the employee.

AFSCME studies of State and statewide municipal retirement systems in the 50 States find that the fixed-benefit formula is used in 29 systems and the money-purchase formula in 17 systems. In the systems which use the fixed-benefit

formula, pensions are related to average salary earned during a period of years immediately prior to retirement. The definition of average salary period differs widely among the States: the last 5 years (or 10 years) of employment; the highest paid 5 years (or 10 years) during employment; the highest paid 5 years within the last 10 years of employment; the best paid 10 years of the last 15; etc. The vast majority of the systems place no limitation on the amount of salary which may be used in determining average earnings, but a few States limit average salary to the first \$3,600 of annual earnings, the first \$4,800, the first \$6,000, or the first \$7,500.

Retirement benefits at half pay may be earned after varying periods of service and upon attainment of various ages. A great majority of the systems provide for half pay after 30 to 35 years of service and attainment of age 60 to 65. In some systems, half pay can be earned after 25 years of service at age 55 or 60, and a few systems provide for half pay after 25 or 30 years of service regardless of age. Some States have established a maximum benefit in their pension formulas; for example, Massachusetts—80 percent of average salary; Ohio—75 percent of salary; and Rhode Island—75 percent of salary plus OASDI benefits. Some of the States have established minimum pensions; for example, California—\$100 per month at age 60 with 20 years of service; and Ohio—\$72 per year multiplied by the number of years of service for persons with average annual salaries lower than \$4,364 who have attained age 60 with 5 years of service, age 55 with 25 years of service, or 35 years of service regardless of age.

Wide variations in the provisions of State retirement laws make it impossible to summarize here meaningful conclusions on benefit levels. Hence, examples are presented in table 2.

Disability Benefits. All but two of the State employee or statewide municipal employee retirement systems studied provide some form of disability benefit. For government employees who are covered by the OASDI program only, no other form of disability coverage is provided by their employers.

Most benefits paid upon retirement due to disability are geared to the amount of service and salary earned, and usually no limit is placed upon the length of time during which such payments

can be made. Because the amount of the disability benefit is influenced by prevailing wages within the different States, it varies more widely than benefits for normal retirement. Usually the benefit consists of an annuity based upon the employee's contributions, plus a pension paid by the State or local government and computed on the basis of the employee's salary.

Some systems have established a flat amount of disability benefit; others specify that the retirement formula be applied. Many States set maximums or minimums on disability pension benefits. Frequently used is the minimum of 25 percent of

average salary and occasionally a maximum of 80 percent of average salary. Some States provide for an offset against disability benefits of amounts received from workmen's compensation. The Federal Social Security Act was amended in recent years to eliminate a requirement for offset of State or locally paid disability benefits against social security benefits.

Death and Survivors' Benefits. Benefits may be payable upon death either before or after retirement and for either occupational or nonoccupational causes. About half of the statewide

TABLE 2. EXAMPLES OF BENEFIT LEVEL PROVISIONS IN STATE RETIREMENT LAWS

| State | Qualifications for retirement | Retirement allowance |
|--------------------|--|---|
| California..... | Age 55 with 20 years of service or with total contributions in excess of \$500. Compulsory retirement at age 70. | At age 60, $\frac{1}{60}$ of average salary multiplied by years of service. Allowance actuarially reduced or increased if retirement occurs before or after age 60. If OASDI coverage elected, the fraction $\frac{1}{60}$ is modified to $\frac{1}{60}$ on the first \$4,800 of salary for years subsequent to OASDI coverage. |
| Massachusetts..... | Age 55 regardless of length of service or before age 55 with at least 20 years of creditable service. Compulsory retirement at age 65. | Graduated percentage of salary (from 1.5 percent at age 55 to 2.5 percent at age 65 or over) multiplied by years of service. |
| Minnesota..... | Age 65 with at least 10 years of service or age 58 with at least 20 years. | Graduated percentage of salary, ranging from $\frac{1}{2}$ of 1 percent per year for first 10 years of service to 1.75 percent per year for each year of completed service over 30 years. Annuity for employee retiring between age 58 and 65 to be reduced one-half of 1 percent for each month employee is under age 65 at retirement. In addition to State annuity, members who qualify receive social security benefits up to \$127 per month, and if they have qualified dependents, a maximum family social security benefit of \$254 per month. |
| New York..... | Age 55 or 60. Compulsory retirement at age 70. | Age 55: Pension of $\frac{1}{20}$ of final average salary times years of credited service, plus a pension of $\frac{1}{60}$ of final average salary times years of prior service, plus annuity purchasable from contributions. Age 60: Pension of $\frac{1}{10}$ of final average salary times years of credited service, plus a pension of $\frac{1}{60}$ of final average salary times years of prior service, plus a annuity purchasable from contributions. In addition to State retirement benefits, members who qualify receive social security benefits up to \$127 per month, and if they have qualified dependents, a maximum family social security benefit of \$254 per month. |
| Ohio..... | Age 60 with 5 years of service; age 55 to 60 with 25 years of service; or any age with 35 years of service. Compulsory retirement at age 70. | At age 65, with 5 or more years of service, guaranteed annual allowance equal to years of service times \$72 if final average salary less than \$4,364; annual allowance of 1.65 percent of salary times years of service if final average salary more than \$4,364. Retirement allowance increased if retirement occurs after age 65 or after 40 years of service, and decreased if retirement occurs before age 65. |
| Rhode Island..... | Age 60 with 10 years of service. Compulsory retirement at age 70. | $1\frac{1}{2}$ percent of salary for each year of service not to exceed 45 years. Maximum retirement allowance of 75 percent of final salary. In addition to State annuity, members who qualify receive social security benefits up to \$127 per month, and if they have qualified dependents, a maximum family social security benefit of \$254 per month. |

systems studied distinguished between nonoccupational and occupational death. The occupational death benefit may consist only of a refund of the member's accumulated contributions with interest. In addition to this refund, some systems add a monthly annuity for survivors, varying from 50 to 66½ percent of the member's salary, and some pay additional amounts to dependent children.

Nonoccupational death benefits before retirement range from a simple refund of the member's accumulated contributions to the refund plus a lump sum of 1½ times the member's pay in his last year of service. All but a very few systems include earned interest with the refund; in a few instances, the interest is limited to one-half of the amount accumulated. Some States pay contributions plus interest or a lump sum of \$500, whichever is greater. Other States offer a special lump sum in addition to the refund plus interest; for example, one-twelfth of the salary earned during the year preceding death times years of service not to exceed 6 years.

The general practice among States upon the death of a retired person is to stop the payment of the retirement allowance—unless an option with survivorship benefits has been elected before retirement⁶—and to pay to the member's beneficiary any excess in the retirement fund of contributions over retirement payments. In recent years, four States (California, Louisiana, Massachusetts, and Ohio) have sought to avoid inclusion in the Federal OASDI program by adding to their systems full survivor benefit provisions, as distinguished from a survivorship option where the employee elects to take a reduced annuity in order to provide for his survivors. Wisconsin has gone a step further and pays survivor benefits in addition to the Federal program benefits received by survivors. In Illinois, State employees contribute an additional 1 percent of salary to provide for survivor benefits; California State employees must pay an additional \$2 per month for such coverage, unless they choose to be covered by the Federal OASDI program.

For retirement systems coordinated with the Federal program, survivor benefits are payable from the Federal fund up to a maximum family benefit of \$254 per month. In addition, a lump sum equal to 3 times the amount of the employee's

monthly social security benefit is payable to the beneficiary.

Severance Benefits. All State and State-administered retirement systems for local governments and most locally administered systems provide for a refund of the employee's contributions when he resigns from service before retirement. A few of the systems do not pay interest on the contributions, but most pay full interest and the remainder pay a fractional part of the interest.

Vesting and Deferred Pensions. Some systems permit an employee to leave his contributions in the retirement fund and draw deferred benefits based on both the employee and employer contributions at the normal age of retirement. Usually this is coupled with a requirement for 10, 15, or 20 years of service.

Advantages of Federal OASDI Program

The Federal OASDI program was designed to give a minimum floor of protection against loss of earnings due to retirement, disability, and death. Where the social security program has been combined with the existing public retirement system, supplemental benefits under the Federal act are payable for those causes.

Contributions to the Federal program are in the form of a tax on the wage earner, which is presently 3 percent of the first \$4,800 of annual earnings. Because the system is primarily an insurance plan, the amount of benefits payable does not depend on the number of years of coverage under the Social Security Act, although there are certain minimum service requirements. In recent years, and probably for the next 10 to 15 years, older workers will receive generally much more in benefits per dollar of contribution than will younger workers. Married couples are given a 50-percent increase in benefits without increased contributions. Thus, married persons receive more benefits per dollar of contribution than do single persons. The benefit formula is weighted in favor of the worker with low average earnings. Thus, workers with low average earnings receive more benefits per dollar of contri-

⁶ Some States allow death benefits to the beneficiary if the member was eligible for retirement at death but had not yet retired or selected a retirement option.

bution than do workers with high average earnings. The benefit rate is the same for women and men, so that women, with their longer life expectancy, receive total benefit payments in excess of those paid men.

Survivor benefits are payable to widows and widowers at age 62 or to widows, regardless of age, with dependent children. Dependent parents are also entitled to family benefits. The worker who becomes disabled and who has completed 5 of the last 10 years of his employment in employment covered by social security receives full benefits, regardless of age. His dependents are also eligible for benefits.

Under the 1961 amendments to the Social Security Act, a male worker may retire at age 62 or, if eligible, may draw benefits on his spouse's account upon attainment of age 62. The benefits are actuarially reduced for each year under 65. This age 62 option had previously been available only to women.

The AFSCME has supported improvements in the social security law for all covered members as well as State and local government employees. The union worked steadily during many years to secure a feature in the law, known as the division vote procedure, for obtaining OASDI coverage in State and local government services. This democratic method, whereby each retirement system member has the opportunity to elect coverage on an individual basis, has been successfully applied in 15 States. A sixteenth, California, held a division vote among State employees November 6-20 of this year. The union was also successful in securing a 5-year rollback⁷ of the effective date of coverage in the case of those systems which may in the future take action to obtain OASDI coverage for their employees. The purpose of the rollback is to permit the employees who enter the Federal system late to obtain full benefits. If the States take advantage of this provision, nearly 2.5 million employees of State and local governments could obtain coverage on a retroactive basis. By special provision, the OASDI system has been extended also to policemen and firemen in 17 States.

Two Administration bills were introduced in the first session of the 87th Congress proposing amendments to the Social Security Act. One of them, which became law⁸ on June 30, 1961, incorporates some of the Administration's proposals for increasing social security benefit payments, effective September 1, 1961, to be financed by a raise of one-eighth of 1 percent in employer and employee contributions beginning January 1, 1962.⁹

The new law also grants an additional 2 years for an election of coverage by State and local government employees who did not elect coverage under the original division vote procedure.

The other 1961 proposal¹⁰ to amend the Social Security Act would, if enacted, provide health benefits to persons 65 and over. The labor movement supported the bill. Hearings on it before the House Ways and Means Committee have been completed, but so far the committee has taken no further action.

Maintenance of Purchasing Power of Pensions

The decline of the purchasing power of the dollar over the past years is relevant to the problem of retirement because price advances bear most heavily on those with fixed incomes. Prices tend to advance over the decades and from generation to generation. The dollar that a public employee paid into the retirement system 10 years ago is worth less than 80 cents today, and it will be worth even less by the time he is ready to retire.

The traditional approach to the problem of decline in pension values has been through specific legislative action to increase retirement allowances. Unfortunately, these increases are generally too small and come too late to be of much help. Furthermore, a great majority of public employee pensioners have had no such increases and are still receiving their original grants.

Another approach to the problem of maintaining the purchasing power of pensions is to tie retirement benefits to the cost of living index, so that with significant changes in the index reflecting price advances, retirement payments can be automatically increased. However, escalator clauses in retirement plans have certain drawbacks. It is difficult to coordinate such a plan with the Federal social security program. Gearing benefits to the Consumer Price Index would mean,

⁷ Public Law 87-778 (1960).

⁸ Social Security Amendments of 1961 (Public Law 87-64).

⁹ For a summary of the amendments, see *Monthly Labor Review*, August 1961, p. 890.

¹⁰ S. 909 and H.R. 4222.

first, acceptance of the present OASDI benefits as adequate, which they are not. Second, AFSCME takes a position that the retirement benefit should be geared not to the cost of living, but to the standard of living, and that retired persons should enjoy increases in their standard of living in the same manner as does the rest of the population.

Still another approach is to compute retirement benefits on final pay or on the average salary during the highest 5-year period. This method tends to incorporate general advances in pay as well as specific advances earned through promotion or reclassification of the position. This is the approach most commonly used by public employee retirement systems. Another possibility of protecting the purchasing power of pensions is an automatic increase in retirement benefit whenever there is an advancement in the pay scales upon which the benefit is calculated.

The AFSCME has considered other possible methods which could be used to gear retirement benefits of public employees to living costs at the time of and following retirement. Among the methods studied, and perhaps the most workable, is the variable annuity. Under this plan, the employee has the option of investing part of his contributions to the retirement system in common stocks which would be broadly diversified and carefully selected by investment experts. The employee allocates a fixed amount of his contribution to such investment, and upon his retirement, his annuity varies from month to month with the level of the stock market and dividend payments. Precedents for the use of the variable annuity plan have been established by the College Retirement Equities Fund of the Teachers Insurance and Annuity Association, by the Wisconsin State Retirement Fund covering State and local government employees, and by the Wisconsin Teachers Retirement Fund.

Shortcomings of the Retirement Plans

There are major disadvantages which arise from the multiplicity of State and local retirement systems. The two major disadvantages are interference with employees' mobility among jurisdictions and increased costs of administration. Some of the States have taken action to minimize these undesirable features by making the State retirement systems available to local government

employees as well as State employees, either on a mandatory or optional basis. Many teachers' retirement systems and some State employee systems contain reciprocal provisions permitting transfers and credit for out-of-state service and intrastate service both of a teaching and non-teaching nature. Other systems grant vested rights whereby, after a minimum service period, employees attaining the earliest retirement age are entitled to draw pensions based on employee and employer contributions. Vested pension rights help to minimize the general lack of provisions for mobility. The increasingly widespread adoption of the OASDI program in combination with the State-administered retirement systems will also help to minimize the general lack of mobility.

Other shortcomings of public employee retirement systems are failure to maintain the purchasing power of the retirement allowance (discussed earlier), general lack of survivorship benefits in the systems which have not been combined with the OASDI program, the problem of mandatory retirement age, and restrictive investment provisions.

Compulsory versus flexible retirement under public employee pension plans presents a problem, especially in light of the increasing proportion of the aged in the population. Although a number of such systems do not specify a compulsory retirement age and some other systems provide for deferment of compulsory retirement on a year-to-year basis, the majority of the systems specify mandatory retirement at age 65 to 70. The AFSCME believes that mandatory retirement should be abandoned and a policy substituted permitting the older worker, with skills and the desire to work, to continue in gainful employment beyond what the retirement system defines as the normal retirement age. Those who argue for mandatory retirement emphasize the ease of administration to the employer and the comfort derived by the older employees from the knowledge that their retirement is mandatory and does not amount to unsatisfactory performance. On the other hand, those who support flexible retirement hold that there is no magic in an arbitrary retirement age, such as 65, particularly since there are many able and willing older workers beyond that age who have nothing constructive to do after retirement and who subsist on a drastically reduced income when they could be continuing as

productive workers and taxpayers. Flexibility, as a principle, should be applied downward as well as upward from age 65. Existing pension plans should be revised to permit earlier disability retirement and earlier optional retirement without severe reductions in benefits, and there should be provisions for gradual retirement which would permit the older worker to adjust to a new way of living in retirement.

Another difficulty faced by the public employee retirement systems is the restrictive investment policy. In the field of investment, public retirement systems have made little progress as compared with private pension funds, which make relatively large investments of assets in corporate stocks. However, there have been some advances in the direction of private investment during the past 6 years. Fifteen States have begun to acquire corporate bonds or stocks, and only a limited number of larger public retirement systems still restrict the investment of their funds to U.S. Government,

State, and municipal obligations. It is obvious that more favorable yields obtained through sound investment of assets will lower the cost of retirement security to the taxpayers and public employees. Higher yields also permit the payment of larger benefits. Investment practices of public employee retirement systems are typically restricted by law. However, several States and localities have recently made moves to liberalize their investment policies. The Wisconsin Retirement Fund may now invest up to 25 percent of its assets in common stocks, and California recently broadened its investments and, in 1958, reaped an average yield of 4.26 percent. There is indication that continuing public pressure, both from public employees interested in greater pension benefits and from governments and private citizens eyeing the reduction in costs of the retirement systems, will bring about liberalization of the restrictions now governing investment practices of the public employee retirement programs.

The Social Security Act of 1935 set up our first general retirement system for workers in commerce and industry. Before then, various government bodies had set up retirement systems for their own employees, and various companies had provided for certain classes of their employees. However, it took the depression of the 1930's, which wiped out the savings of so many elderly workers, to show that most workers reached retirement age with no assured income.

In passing the Federal Act, Congress recognized that the problem of want in old age was national in scope, and that, because many workers in their lifetimes are employed in more than one State, the program would have to be conducted at the Federal level. Congress also felt that old-age security should come as a right, and not as public aid.

—From *The American Workers' Fact Book* (U.S. Department of Labor, 1960), pp. 256-257.

Work Injuries and Recovery

EDITOR'S NOTE. *The following article is the second of two by Earl F. Cheit, associate professor of business administration at the University of California (Berkeley). The first appeared in the October issue and dealt with survivors' benefits. Both articles consist of excerpts from his book, Injury and Recovery in the Course of Employment, scheduled for publication in November by John Wiley & Sons. Dealing with permanent disability, this selection consists of the concluding portions of chapter 11; earlier sections of the chapter contain statistical support for the conclusions. Footnotes have been renumbered and minor word changes have been made to cover elisions in the text and to shorten headings.*

II. Permanent Disabilities—

A Policy Proposal

The Problem Restated

Reduced to its basic terms, the permanent disability problem emerges because many injuries do not lend themselves to a simple application of the uniform benefit principle, and because recovery cannot be predicted. As we have emphasized, the problems set in motion by these two difficulties create barriers to rehabilitation. Since *temporary* benefits are low, there are pressures in minor cases for *permanent* disability ratings and also pressures by workers to keep their healing benefits until they can get a job. And where there is real permanent disability, but a dispute over the size of the claim, the injured worker may actually avoid a job in order not to lose his award. An award is more real than the possibility of rehabilitation or an insecure job. The need for lawyers helps to reinforce this behavior. It is not a matter of malingering. But it is a matter of seeking for something *real* as against something *possible*. For their part, carriers resist claims, or at least try to minimize them, when the liability involved cannot be measured. They are convinced of the need for this by the fact that workers have an incentive to maximize these claims. Quite often,

employers are disturbed by these controversial cases and conclude that it is the best policy to terminate the employee.

Thus the handling of these permanent disability cases has succeeded in destroying the desired incentives, and everyone in this situation finds it in his best interest to do the things that most discourage rehabilitation. The injured worker does not want to be rehabilitated; the insurance carrier does not want to recognize the claim; the employer does not want to retain the injured worker in his employ.

In this setting, it is remarkable that the record of rehabilitation is as good as it is; not that it is not better. It is a tribute to the workers, employers, and insurance carriers who are able to overcome these built-in barriers to rehabilitation that so many injured workers do return to their jobs. As we have seen, many employers rehire their disabled workers, either in cooperation with rehabilitation agencies, insurance carriers, or, in some cases, by agreement with the unions in their plant. While this result is commendable, in too many cases it does not happen. The question is: how can it be made the norm?

A Policy Proposal

Temporary disability presents compensation with no insoluble problems. Under the system proposed here, an injured worker's initial medical and benefit treatment would follow the approaches (recommended in earlier chapters) for handling temporary disability claims. Good supervision of benefit administration can assure prompt, inexpensive, and certain benefit payments; supervision of medical care can assure correct medical treatment. It is when temporary disability status is completed, even under a law with adequate income replacement, that the compensation problems arise.

This is the time when an attempt is made to rate the residual degree of permanent disability. At this point, workmen's compensation must acknowledge that while rating physical incapacity is full of difficulties, rating occupational incapacity is impossible. It follows that the attempt to reflect occupational incapacity in permanent disability rating (either in detailed percentage ratings or in schedules) should be dropped.

Instead, the system should adopt permanent disability rating procedures that seek to determine physical incapacity alone. The difficulties in classifying disabilities, especially the subjective factors, make even this approach far from simple. No matter how precisely expressed, ratings must be based in some measure on imprecise judgments. What is proposed here, however, is that these difficulties be faced squarely; that ratings be made, not in fine degrees, or precise schedules, but within ranges. An injured worker would be rated within 1 of, say, 8 or 10 groups. Assume that each of these groups spans 12 or 10 percent of rated physical incapacity.

Thus instead of rating an injured worker 17 or 18 percent disabled (or making such a rating for nonscheduled injury), the law would simply provide for an injury falling into Group A, B, etc.

Given the groupings of the disability categories, and the fact that the ratings would be reflecting physical impairment only, the disagreements over ratings, though not completely eliminated, would

be substantially reduced. No longer would every case raise borderline rating issues. Although these cases would still exist, there would be far fewer of them. Most cases would fall clearly and without controversy into one of the broader categories.

Two Types of Benefits

Once a permanently disabled worker is rated within one of these groups, he becomes entitled to two types of benefit protection (aside from his unlimited, rehabilitation-oriented, supervised medical care which we have already discussed).

(1) An indemnity benefit, the size of which increases with each disability category, to be paid in the conventional fashion, or with variants noted later. The important point is that the payment would clearly be linked to what the injured worker has lost. It would represent nothing more than payment, according to agreed upon definitions, for physical incapacity.¹

(2) An incentive assurance to help guarantee his reemployment, the duration of which would increase with the ratings.

The first of these benefits, the indemnity payment, would provide no difficult problem. Its size could be the average now paid to injured workers in the range of disabilities covered in an up-to-date law; or better, could begin at the low end of that range for the lower category cases, and increase as the disability became more severe. The duration of these benefits could be an important element in the system, as we will observe presently.

The Reemployment Assurance

More important, at this stage of the discussion, is the second aspect of the benefit—the reemployment assurance. This would simply provide that any employer who does not rehire a permanently disabled worker after his condition is rated stationary becomes liable for a sum equal to the employee's cash benefit, and this liability cannot be passed on to a carrier. Where the employer is self-insured, the liability could simply be doubled and thus produce the same effect. The money could be used to offset the costs of a rehabilitation supervision program. Reemployment would be at least at former wages and the duration of the guarantee would increase with the severity of disability.

¹ Even this simplified approach could admit exceptions if they were deemed desirable. Consider the cases of minor nontraumatic loss of hearing. As set forth, the rating system would pay benefits when claim was made. But an annuitylike solution, such as adopted in Wisconsin, could be provided.

To keep this provision from becoming an unjust penalty on employers, who for reasons beyond their control cannot rehire their disabled workers, they would be permitted to show cause why they cannot discharge this responsibility. Thus in instances such as very small establishments where the jobs are so few and the nature of the injury such that reemployment, even with vocational rehabilitation, would be impossible, the employer could show cause and be thus relieved of the penalty payment for not rehiring his injured worker.² The worker would, of course, receive his cash benefits, and would be promptly identified as in need of vocational rehabilitation.

Among other acceptable reasons for cause might be, for example, seasonal nature of employment, or declining employment. If, for personal or career reasons, an injured employee chose not to return to his former employer, the penalty payment would not apply.

The point is that where the employer does show cause, and where the employee chooses not to return (and in those very few instances where the employer cannot show cause but chooses not to rehire the man anyway), these cases will have been identified at an early stage as in need of vocational rehabilitation.

An Alternative

To maintain simplicity, the proposed reemployment requirement could be made uniformly applicable to all employers and the penalty payment made part of the manual insurance rate, thus reflecting the increased cost in experience rating. Since this approach would require no showing of cause, or hearings, it would be simpler and less expensive to administer. For it to succeed, however, the insurance rate would have to be set high enough to be a strong inducement to reemployment, yet not be unbearably burdensome to smaller employers.

Admittedly, this basic approach would not obviate the necessity for appropriate physical rehabilitation to be started as part of the patient's medical treatment following the injury. But it would, in addition to this important part of the worker's restoration process, quickly identify those workers who are not able to go back to their former jobs and permit vocational rehabilitation resources to be devoted to them.

Advantages of the Proposal

What are the advantages of such an approach to rating and compensating permanent disability? The most important one is that the economic incentives are made rational, restoring strong rehabilitation inducements to the program for the injured worker as well as the employer.

When employers are given an economic motive to rehire injured workers, it seems safe to assume that the overwhelming majority of injured workers would be restored to their former jobs, or at least to some part of their former jobs. And this restoration would be under the conditions most conducive to success—the injured worker's accustomed surroundings. It is a commonplace observation among rehabilitation workers that reemployment of injured workers is most successful in these circumstances.

The proposal does not seek a new, untried, end. The California survey data have shown that some employers are already doing what is proposed here, and that the great majority of workers are capable of going back to their former work or similar work with the former employer. In this connection, an official of a leading compensation carrier reports: "There are extremely few cases in which the employer is unable to take the employee back . . . (if) he is able to do some type of work. We find that in most of these cases the employer is engaged in seasonal or casual employment and has left the community or no longer has work available."³

After four years of experience with cardiovascular cases, the Los Angeles County Heart Association, Work Classification Unit, found that 88 percent of its 311 cases were able to return to work with "few or no restrictions," and that in those instances where employers had a choice, the Unit's recommendations were followed (and reemployment gained) in 86 percent of the cases.

Individual companies and insurance carriers have had important, if limited, success in achieving reemployment of the disabled. When the economic incentives favor the employer who rehires injured workers, many more will do so.

² Although a payment to the rehabilitation program would be justified.

³ Statement by J. E. Linster, vice president, Employers' Mutual Liability Insurance Co. of Wausau, Wis., in *IAABC Proceedings, 1967*, U.S. Department of Labor, Bureau of Labor Standards, Bull. 115, p. 165.

One immediate byproduct would be that the number of persons who must turn to vocational rehabilitation facilities will be substantially reduced. Workers who cannot return to their former jobs (for whom the employer shows cause or pays the penalty for not accepting) or who choose not to, will be a far smaller number of cases for restoration than the backlog of cases who now may never reach rehabilitation counselors and facilities. By providing this limited number of cases with maintenance payments (already provided in about one-third of U.S. compensation laws) and effective vocational counseling,⁴ the system could offer an effective course of rehabilitation.

Would the economic advantage be sufficient for an employer to rehire his injured workers? The evidence from experience under self-insurance leaves little doubt that it would be. Studies have shown fairly consistently that when an employer is self-insured, and thus directly responsible for compensation costs, he is not only more safety conscious but more anxious to rehire injured workers and reduce residual disability. In fact, it has been shown that the healing period for the same type of injury—time between injury and healing becoming stationary—is significantly shorter for workers who are employed by self-insuring firms.⁵

Effect on the Claimant

Its focus on a return to former employment also makes the proposed system superior to the present rating system from the worker's point of view. Claimants' attorneys often report that the first questions asked them by injured workers *assume*

a return to former employment; they are uncertain of their benefits and wonder if they will get the same or a lower rate of pay when they return. But they assume that the purpose of the workmen's compensation law is to get them back to their former jobs.

Of special value to the worker is the proposal to base benefits on physical incapacity alone. This rating plan would not seek justification on any theory of wage loss or attempt to predict his future labor market success, but would frankly pay him because he was physically impaired. The worker would not have to demonstrate his loss of earning power to receive an award. He would not have to make the choice between maximizing his injury to increase monetary compensation and minimizing his injury through rehabilitation at the risk of diminishing or terminating his compensation. Once his award was determined, it would not be reduced or cut off if he found employment.

Relieved of the fear of economic disaster, workers would have less reason to exaggerate disability and to magnify claims. Knowing that reemployment was available, they would seek to go back to their full earning power as soon as possible. In other words, the filing of a claim would not mean the beginning of the end of their jobs, thus spurring the desire to get the biggest possible awards. With assurance, workers could look forward either to their reemployment or rehabilitation prospects.

Just as claimants would have reduced need to exaggerate claims, so insurance companies would have reduced need to resist them.

Precedent for the Proposal

While this proposal departs from present compensation administration, precedent for it exists not only in practice but also in law itself.⁶

The California Insurance Code prohibits insuring against the additional amounts payable under workmen's compensation law when there is a finding that an employer is guilty of "serious and willful" misconduct, or that an injury has occurred to an illegally employed minor.⁷ The Florida law has a similar provision for child labor.⁸

A strong precedent is the Wisconsin provision that any employer who demands oppressive physical standards (or discriminatory physical examination) can be denied his experience rating

⁴ James N. Morgan, Marvin Snider, and Marion G. Sobel, *Lump Sum Redemption Settlements and Rehabilitation* (Ann Arbor: University of Michigan, Survey Research Center, 1959), p. 14.

⁵ Earl F. Chelt, *A Study of Some Possible Incentive Effects of Workmen's Compensation Benefits*, Ph.D. dissertation, University of Minnesota Graduate School, 1954, pp. 91-93.

⁶ The extent of intervention into the employment relationship has ample precedent in public policy under the National Labor Relations Act and State fair employment practice legislation. A California Commission recently recommended extension of California FEP legislation to include discrimination because of age, and there is increasing support for including physical disability in such legislation. A broader approach is that followed by several European nations which have enacted legislation creating a legal obligation on the part of employers to employ disabled workers. See "The Legal Obligation to Employ the Disabled," *International Labour Review*, Vol. LXXV, No. 3 (March 1957), pp. 246-264.

⁷ California Insurance Code, Sections 11661 and 11661.5.

⁸ Florida Statutes, 1957. Labor Code, Chapter 440.54.

credit.⁹ Admittedly, penalty provisions such as these are not often invoked. The Wisconsin Compensation Rating Bureau records reveal not a single instance in which this provision of the law has been applied. Yet their intent is similar to that of the proposal to assure reemployment.

Perhaps the clearest precedent of all is the practice of adjusting an employer's insurance costs according to his experience rating. If the law permits a penalty for poor accident frequency and severity records, why not a similar one for a poor reemployment record?

There is precedent for the program in a more fundamental sense, as well. After all, the basic intent of compensation laws is that costs of occupational disability be absorbed in the production processes. Thus firms could not argue that they were at a competitive disadvantage if each of their competitors were required to absorb the costs of their injured workers in this way. There is ample evidence to argue that by reemploying their injured workers firms would not incur greater longrun expense, and, in fact, might well enjoy reduced compensation costs.

Since the proposed permanent disability rating and benefit policy would neither make definition of the liability less certain, nor disrupt established underwriting procedures, it would cause no special problems to carriers and self-insured risks.

It would put an even greater premium on safety consciousness in the plant. And the fact that the injured worker returns to the job and is not replaced by a new, fresh recruit would be a helpful reminder to other workers of the need for greater safety efforts.

A Limited Solution

The proposed system does not pretend to solve all of the problems associated with permanent disability rating and benefit administration. Even if all that was hoped for were achieved, for example, the system would not be able to improve the fate of those for whom a return to work was completely impossible. Although there are few such cases, they do exist. The rehabilitation of those cases in which the employer shows cause, or in which the worker chooses not to return, would continue to present problems, but these could be more effectively handled once their numbers were reduced and the cases promptly identified. Of

course, there will always be cases in which some exaggeration of disability is attempted, cases of "problem workers," and instances in which continuing jurisdiction (such as that proposed by the IAIABC) is necessary to assure appropriate benefit protection. And there will probably always be some employers who, for whatever reason, will try to avoid rehiring a worker injured in their employ. Here again, while the proposal should help to reduce the numbers of such cases, it cannot hope to eliminate them. The proposal also requires administrative procedures to determine whether or not an injured worker can perform his job; or whether cause for not reemploying him has been demonstrated. With its excellent staff of rating specialists, California would be in an ideal position to establish the needed administrative machinery.

In some industries and occupations, the proposed system might have only limited effect. In agricultural employment or building trades, for example, where employment is frequently short-term, a guaranteed return to work might be more difficult than in other industries. This should not be granted without qualification, however. In California, the Vocational Rehabilitation Service has demonstrated that rehabilitated workers can often return to work in agricultural employment. Also, the State Compensation Insurance Fund has had success in gaining reemployment in agriculture as well as construction. Moreover, by collective agreement, industries with casual employment have developed vacation benefits, pension, health, and welfare plans. Still, industries such as these would probably not prove fully as able to provide reemployment as would others. To this extent, the proposal leaves the problem in its present state. But to the extent that it reduces the rehabilitation caseload, thereby permitting these cases greater claim on counseling and rehabilitation resources, the proposal helps them too.¹⁰

Subjective Complaints

A similar conclusion applies to the cases of "subjective" complaints. The premise of the proposal is that the number of these cases would be reduced when the work alternative is real, and the

⁹ Wisconsin Insurance Code, 205.08 Section 8.

¹⁰ By permitting greater flexibility in seniority rules, work assignments, and apprenticeship ratios, trade unions could make an important contribution to reemployment of workers who are unable to return to their old jobs.

controversies lessened. Supervised medical care would undoubtedly assist. Even if this is true, however, these cases will continue to arise and to cause the old problems, and it seems doubtful that any system can ever hope fully to solve the issues they involve. One industrial physician, Dr. Forrest E. Reike, contends that, except for cases so serious that lifetime payments are to be made, the role of the permanent disability award should be reexamined for its effect on disability. Arguing that the potential award is second only to pain and suffering in its destructive effects on the injured worker, he advocates delaying permanent disability awards until an injured worker has worked for several months, and "... refusal to attempt medically authorized work should interdict award consideration."¹¹ However, this might raise as many of the old incentive problems as it would solve.

Would employers (faced with the prospect of providing continued employment to workers who become injured) discriminate against workers with a history of disablement when looking for new employees? This possibility is real enough to require that strengthened subsequent injury funds be made part of the proposal. But it should also be noted that if an employer was able to demonstrate that a worker was unable satisfactorily to perform a suitable job, this, of course, would be sufficient cause to release him.¹² The issue of what is satisfactory performance has caused little problem to the employers who currently reemploy their injured workers. Although experience is required in selecting the proper job for the disabled worker, this, too, has not proved to be a significant barrier in the firms we have commented on above.

At the present time, an injured worker who is severed from his job and does not have effective rehabilitation opportunities is left alone to relocate. Small wonder that he becomes indemnity benefit conscious and seeks through an attorney to get all he can from his employer.

Under the proposed system, the employer would have to show why the injured man should not be reemployed. This introduces more administrative machinery and could be troublesome except for the fact that only a few cases are likely to be involved. (This problem would not arise if the insurance alternative, discussed earlier, were adopted for the penalty payment.)

Benefits: Amount and Duration

Two aspects of the proposal, which deal more with the degree of its application than with the principles involved, have not been specified in anything but general comment: the dollar benefits and the duration of the "reemployment assurance." The proposal assumes that life pensions would be part of the system and would be paid for disabilities rated sufficiently severe; that dollar amounts would meet the tests of adequacy such as those proposed by the IAIABC.

The duration of the reemployment assurance would increase with the degree of severity of the injury—extending, say, from 1 to 5 years. From the reported experience of California State Compensation Insurance Fund rehabilitation work, once solid reemployment is gained, the problem of "tenure" disappears. Hopefully, that would be the case in this situation.

Given this employment tenure, benefits could be redistributed toward the more seriously disabled cases. For example, if the California cases now rated under 5 percent disabled were provided a reduced cash benefit, this would redistribute benefits from about one-fifth of all permanent disability cases.

While to some the system might seem demanding initially, when employers who do not now rehabilitate injured workers become accustomed to doing what some of their more forward-looking colleagues now do, they would probably thenceforth rehire their injured workers as a matter of course.

In sum, not until permanent disability benefits are made equitable will they be made adequate; and they will not be equitable without an effective inducement to reemployment, whether by the proposal set forth here or a better one.

¹¹ Forrest E. Reike, M.D., "Doctor and Workmen's Compensation," *Industrial Medicine and Surgery*, Vol. 26, No. 1 (January 1957), p. 9.

¹² Adding a payment to the rehabilitation program would discourage unwarranted use of this provision.

Summary of Studies and Reports

The Future of Collective Bargaining

EDITOR'S NOTE.—*Early last August, two addresses were delivered on "The Future of Collective Bargaining." One was by Under Secretary of Labor W. Willard Wirtz at the Labor-Management Day Luncheon of the International Trade Fair, Chicago, on August 3; the other by Archibald Cox, Solicitor General of the United States, before the American Bar Association's Section on Labor Law, on August 8. Excerpts from each follow. Minor editorial changes have been made, and for ease of reading, deletions have not been indicated.*

Address by Under Secretary Wirtz

THE QUESTION of what collective bargaining can do to meet problems [such as long-term unemployment for workers displaced by technological development and maintenance of high standards of living for American workers in the face of competition from goods produced in newly developed countries where costs of production are much lower] remains to be answered. Unless collective bargaining does have room to accommodate them, and answers to offer, it will be relegated in the future to matters of housekeeping in the plant, administering procedures for handling discharge cases, establishing safety programs, devising seniority systems that don't cover the crucial cases, and dividing up pies whose size is determined some place else.

Three Propositions

Bargaining in the "Public Interest." I assert, therefore, this first proposition: that in a world that has shrunk overnight and in a national economy in which each part depends on every other

part and on the health of the whole, the continuation of private collective bargaining as an important force depends on the decision of the bargainers to exercise, or not to exercise, responsibility for the concerns that affect the whole economy.

These concerns are not easily defined. Those who talk most easily in this area about the "public interest" are most apt to use the phrase as a wrapping for their own private interests. Yet it has some identifiable elements. These include the achievement of an equitable sharing of the costs and fruits of production or service, the maintenance of economic stability, and the achievement of the Nation's full capacity for economic growth.

These are vaguely stated principles: equity, stability, growth. Yet collective bargaining proceeds necessarily from very broad guiding principles, and central importance attaches to whether bargaining is conducted under such conditions and in such a way as will permit the effective application of those principles to particular cases.

Adjusted Collective Bargaining Procedures. As a second proposition, I suggest that the future of collective bargaining depends on whether its motive power and its procedures can be adjusted and revised to permit a larger recognition and reflection of the common national interests, particularly those in the achievement of stability and growth.

There is already evidence of significant and encouraging developments on this score. One has to do with the role of economic force. Collective bargaining has grown up on the theory that its essential motive power is the right of either side to say "no," regardless of justification or lack of it, and to back this up by shutting down the operation. To believe deeply in the efficacy of collective bargaining and to recognize fully that it has contributed immeasurably to economic and social welfare is not to be blinded to the fact that it has been much more an interplay of economic power than an exercise of pure reason. Yet there is

reason to suspect that the same thing may be happening to the concept of force in the labor relations field as in the international arena. The strike and lockout, like the force of arms in international relations, may continue to be regarded as effective in comparatively small, limited disputes; but the big strike or lockout, covering a whole, vital industry, may well be moving in much the same position as the atom bomb. There is now such general recognition of the lethal effects of closing down an essential industry, such realization that the public will not tolerate it, that private statesmen—the administrators of the collective bargaining process who are also its architects—are working purposefully to find substitutes.

One kind of substitute is illustrated by what has happened in the coal industry. Fifteen years ago the coal fields were battlegrounds of belligerence bordering so close to apparent anarchy that the President spoke seriously of drafting the miners into the army. Today the bituminous coal operators, the United Mine Workers, the utilities which are the principal users of coal, as well as the railroads which carry it, are all members of the National Coal Policy Conference—whose jurisdiction, as its most famous architect describes it, is “anything we can agree on.” There hasn’t been a major coal strike for 9 years, and such unity prevails that the problems of the industry are now more with the Anti-Trust Division than the National Labor Relations Board.

Such developments may or may not present other “public interest” questions, but so far as the public’s preoccupation with labor peace is concerned, that interest has in this case been satisfied.

A perhaps more widespread development involves the increasing use of neutrals, independent third parties, “public members,” as integral agencies of the collective bargaining process, not just as arbitrators called in after the parties are set on a collision course, but as participants in the negotiation process itself or even in the pre-negotiation phases of the private deliberations.

In the construction industry, on the railroads, at Kaiser Steel and Armour and Co., in the transit industry in New York, to refer to only a few instances among many, the private parties are voluntarily experimenting with new and various procedures for getting an independent

viewpoint on the problems they must face in their bargaining.

If these neutrals serve only as agreement brokers, bringing the private parties perhaps more painlessly to the same conclusions their own devices would lead them to, these are not significant developments. The accumulating evidence suggests, however, something quite different. It is that these procedures are resulting in the development of factual data from which more rational bargaining can proceed; that points of view are being presented to the parties which are based not just on compromise, but on more responsible reason; that the parties are being given in advance a clearer picture of what they may expect in terms of public reaction to their positions, which will ultimately be so influential on any disputed settlement.

There is substantial indication here, I think, of an evolving pattern of resort in one form or another to that arbitrament of reason rather than of economic force, which may well be essential to the continued vitality and effectiveness of significant private collective bargaining.

Yet the question remains of how, and even whether, collective bargaining covering a particular employment relationship can, at its best, provide an adequate national response to such problems as technological displacement or the reconciliation of high standards of living and free trade as coordinate national objectives.

New Forms of Private and Public Action. The answer seems to me to be that it can do so only in part and that the more complete response to these new demands will necessarily involve new forms of activity by agencies of government. But this does not, in my view, mean more government *as opposed to* private administration. It means rather—and I would suggest as a third proposition—that the effectiveness of collective bargaining in the future depends upon the working out of significantly new forms of coordinated private and public administrative processes.

What this means is most readily illustrated by reference again to technological displacement. A private collective bargaining agreement can include severance pay provisions. The joint study group set up by Armour, the United Packinghouse Workers, and the Amalgamated Meat Cutters has also been exploring the possibilities of private

arrangements for doing some retraining of displaced employees and even for moving them—where circumstances permit—to other plants of the same company. It is conceivable, although perhaps unlikely, that private procedures can be worked out to satisfy the equity of a displaced employee and permit him to carry to the new employer the pension, perhaps even the seniority, credits built up in his previous employment.

There is also a job for collective bargaining, as we move into this age of automation, of seeing to it that there are eliminated from the private employment rules and practices of the Nation any anachronisms which restrict unduly men's performance of available work.

Yet these are only some of the problems "automation" poses. After thorough study, the Armour committee reached the conclusion that: "Only through a coordinated approach in which public policy and private action mutually reinforce one another can the employment problems of technological change be met. Collective bargaining by itself cannot fully solve these problems."

It is clear that the brunt of the retraining job must fall upon the Government. President Kennedy has asked the U.S. Congress for the authority and the appropriations to assume this responsibility; and the committees in both houses have now reported out favorably the Manpower Development and Training Act of 1961. The President has also been urging modifications of the State unemployment compensation laws to correct the present situation [in some States in] which an unemployed man loses his unemployment benefits if he is taking a retraining course.

Secretary of Labor Goldberg has also instituted a complete retooling of the U.S. Employment Service to meet the demands of this new type of unemployment situation. It will not be effective, however, without a greatly enlarged degree of cooperation from private industry.

The problem is neither technological development, which is essential to the economy's growth, nor technological displacement. The problem is that there are not today enough other jobs for displaced employees. Only part of the task can be performed by the private agencies of collective bargaining; part of it requires broader attention. But the two approaches must be closely integrated, or at least coordinated.

Similarly, part of the imports problem can be, and must be, met privately. This is not only a matter of recognizing at the bargaining table, that foreign competition may properly be a factor in determining what wages can be paid. Beyond this are infinitely various approaches—many of them lending themselves to union and company cooperation—to the possibilities of improved productive efficiency.

Yet where particular situations warrant it, there must be resort to cooperative measures by private and public agencies. A recent illustration of this is the textile industry. In May, the President announced a seven-point program of industry and Government cooperation. And in July, in Geneva, a U.S. delegation composed of representatives of the Departments of Commerce, Labor, and State met with the representatives of 13 other nations, including the low-cost producing countries, and negotiated a temporary multilateral agreement which will prevent disruption of American markets in this industry. Representatives of the cotton textile companies and the affected unions were active advisors to the U.S. delegation. Here was a new type of cooperation between private and Government representatives to meet that part of a problem which the private decision-makers could not meet alone.

There are other recent and significant illustrations of new forms of coordinated public and private action in meeting developing labor relations problems. Labor disputes at the missile sites have been placed in the hands of a commission whose authority stems directly from a Presidential executive order but is based on private no-strike, no-lockout pledges; membership of the commission includes both Government officials and representatives of the companies and union affected. The Government's Equal Employment Opportunity program depends for its effectiveness on the participation of a broadly based committee of private citizens. Secretary Goldberg met [in August] with a panel of some 20 public, management, and labor representatives to work out recommendations for proposed changes in the emergency dispute provisions of the Taft-Hartley Act. Each month, 14 leaders of labor and management meet with the Secretaries of Labor and Commerce and 5 public representatives to discuss key problems of labor-management

relations and wage and price policies and to prepare recommendations for the President.

I think it is the general conclusion of participants in these programs that they represent not Government intrusions upon private precincts, but rather a strengthening of private processes by the close working cooperation of the Government where the problems go beyond what private powers and resources can meet.

Conclusion

I conclude then with this picture of the future of collective bargaining: that it will necessarily, if it is to preserve its meaningfulness, take a larger account of the responsibilities which the new forces loose in the world have thrust upon the Nation; that the procedures of collective bargaining are already developing along new lines which make it a more reasoned sort of process, and that an essential part of this development will be a converging and a coordination of public and private decisionmaking in the whole area of labor relations.

I see, in short, a prospect of more reliance in collective bargaining on the principles of government, more use in government of the resources and procedures of collective bargaining, and that coordination of the two processes which will enhance the effectiveness of both.

Address by Solicitor General Cox

TO FIND OUT where collective bargaining is today, we must take a short look backwards. History will mark the progress made in the industrial world during the past quarter century as a great surge forward. Although labor unions are much older, this period saw the birth and growth of most of the institutions and procedures that we loosely describe under the rubric "collective bargaining." The salient accomplishments can be brought under three headings.

Three Developments

1. The formation of unions and spread of collective bargaining enabled rapidly increasing numbers of employees to share effectively in the governance of their industrial lives. Their participation, it is true, is usually vicarious. But the fact remains that there is a measure of participation, and the designated representatives are there to press the employees' interests—protection for the worker unprecedented in all history.

The rapidity with which collective bargaining spread—the extraordinary speed with which workers flocked to unions during the Roosevelt era—created a rosy picture of endless growth and vitality that affected the expectations well into the ensuing decade in which the rate of growth slowed to a crawl. In 1933, 11.5 percent of the employees in nonagricultural establishments belonged to a labor union; in 1940, 27.2 percent; and in 1945, 35.8 percent. The spread of collective bargaining was proportionately wide.

2. The rule of law was extended to industrial life. I have in mind not only the substantive rights like seniority, which are created by collective agreements, not only the regularization of discipline, transfers, and sometimes promotions, but also the quasi-judicial system—grievance procedures, arbitration, and umpireships, by which substantive rights are supplemented and enforced. Perhaps I suffer from a lawyer's view, but I rank the spread of the rule of law—the creation of an industrial jurisprudence—among the prime accomplishments of collective bargaining.

3. The most important material accomplishment of the labor unions was to increase the returns from labor—wages and supplemental payments—to shorten hours, and to improve working conditions. I am not unmindful that these things would not have been possible without an increase in productivity for which collective bargaining can claim no more than partial credit; and perhaps some of the improvement would have occurred even in the absence of collective bargaining. Nevertheless, when all the arguments are in, the fact remains that collective bargaining and higher wages, greater income, shorter hours and more security both came together.

Pension plans were established by collective bargaining in order to supplement the social secu-

city system. Medical and hospital insurance became widespread. And in major industries, a start was made in providing supplemental unemployment benefits.

Two Conclusions

Looking back over these accomplishments, two conclusions seem warranted.

First, collective bargaining manifested great vitality and was extraordinarily creative. Consider the novelty and intricacy of our seniority arrangements, pension plans, health and welfare funds, and supplemental unemployment benefits. A high degree of skill and imagination was also required in developing the complex and varied machinery by which bargaining representatives are chosen, contracts are negotiated, and individual rights are administered in the shop.

Second, is it not fair to say that labor unions and collective bargaining served public interest very well? I do not mean to imply that everything was rosy. There are disappointments and worrisome exceptions. But, generally speaking, all the institutions and procedures of collective bargaining were built without unreasonably impairing the efficiency and productivity of industry or the rewards of management and investors.

Why Bargaining Is Changing

In turning to the future, therefore, is it not fair to ask first, why should not collective bargaining continue along the same lines of development? Why should there be any feeling of uneasiness or impending change?

1. One explanation may be the conscious or unconscious realization that the most exciting and challenging part of the job facing labor unions and collective bargaining during the past quarter century has now been substantially accomplished.

In suggesting that one of the reasons for the sense of uneasiness and potential change in the labor movement and collective bargaining is that the most pressing parts of the job have been accomplished, I do not mean to imply that there is any less need for labor unions or collective bargaining. My effort is only to call attention to the major transition from the stimulation and excitement of creation and rapid growth to the slower, steadier business of administering estab-

lished institutions. Unions would be needed even if collective bargaining procedures were universal and had developed to a high state of perfection. Who else would maintain the institutions and procedures? Would we not quickly slip back to the 1920's if unions became weaker or the procedures were unused? And there are industrial areas still to organize. It is foolish to suppose that the need for collective bargaining has grown any less.

2. The revolutionary changes in industry stimulated by science and engineering furnish a second reason for expecting changes in collective bargaining. Industrial changes will bring in their wake serious economic dislocations. Even under the most favorable conditions, the dislocations will give rise to temporary unemployment and loss of pertinent skills. Even the immediate transfer to a new job with another employer may involve loss of seniority and pension rights.

We have come to know the most dramatic of the changes by the label "Automation." During the past 15 months, the then Senator, and now President Kennedy, has repeatedly pointed out that the dread of automation could be dispelled and its promise realized only by a multipronged attack both by Government and in collective bargaining.

Of course it is possible for Government and industry each to go its separate way. The Government could concentrate upon achieving the high rate of growth necessary to full-employment, upon strengthening the Employment Service, upon aid to distressed areas, and revision of the unemployment compensation laws. In collective bargaining, management and labor might deal with such matters as job preferences and transfers to new plants, retraining programs, seniority, and devices like severance pay for cushioning the shock of unemployment. If rationality prevails, however, there will be much closer cooperation.

The point can be illustrated by two specific examples. One is the interplay between pension plans and labor mobility. Mobility is inhibited when severance of the immediate employment relation dissolves the private pension bond. If the relation is broken by force, the hardship to the individual is the greater. He not only loses what "equity" he may have built up in the old plan—(I assume that there are no vested rights)—but

also, as an older worker, he is obviously a less desirable participant in the pension plan of a new employer. Only some kind of integration between private pension plans and the governmental social security system would obviate these difficulties.

The second illustration is the need for coordinated public and private programs in training workers. The new technologies require not only different skills but, on the average, a much more highly skilled labor force. It is the unskilled and semiskilled, and those whose skills are outmoded, who suffer most from unemployment. Moreover, retooling our industrial plant and retraining the labor force is plainly the best, if not the only acceptable way, of improving earnings and labor standards in an increasingly competitive world economy.

If this line of thought contains even a grain of truth, this is another field where much closer cooperation between Government and management and labor are required. Collective bargaining cannot do the job alone, partly because of the cost and partly because the worker's need is for skills enabling him to cross existing industry lines. And obviously the Government cannot either plan or carry out training programs upon a wide scale without the cooperative assistance of management and labor.

3. The failure of collective bargaining to solve the problem of national emergency disputes is a third reason for anticipating significant, longrun changes in collective bargaining.

The problem is not new, and probably it is still possible to debate whether any strike really creates a crisis in which the national health or safety would be endangered before there was a settlement. But new pressures are rising for some solution to the problem, real or fancied.

The most obvious is the long and tightening contest with international communism.

The public is also less tolerant of strikes which seriously inconvenience it.

And I have been surprised on more than one occasion by the attraction of compulsory arbitration for editors and publishers and other well-informed observers whose basic sympathy for the labor movement is attested by their vocal and financial support of other liberal causes.

For a quarter century, except during the war and the Korean episode, the Government's avowed

policy has been one of great concern for the negotiation of a settlement upon *some* terms, and of considerable indifference to the substance of the bargain. Over the same period, collective bargaining produced—or, if it did not produce, operated in the environment of—a rising level of wages and prices. When the Government's influence was felt in a real crisis, under both Democratic and Republican Administrations, it too was in favor of a settlement upon terms that would buy peace. And certainly this was the dominant philosophy, until recently, in the thinking of most "public members."

Unlike many people who call attention to these phenomena, I imply praise and not criticism. In my view, the trend produced by collective bargaining was generally desirable from the standpoint of both workers and the public interest. Wage and price inflation carries some costs, but the wider distribution of wealth was to the general advantage and our widespread prosperity, not to say affluence, certainly gives some support to the Keynesian view that under the economic conditions then existing increased consumer purchasing power would help to produce a higher rate of economic activity and, as we should put it today, faster economic growth.

4. Changes in our condition raise a question, however, as to whether the indefinite continuation of this trend is either possible or desirable. They compose my fourth reason for believing that changes in the institutions of collective bargaining will develop.

(a) Our competitive position vis-a-vis other industrial nations has shifted. [As our President has said,] "We can no longer afford the large erratic movements in prices which jeopardize domestic price stability and our balance of payments abroad."

(b) As I remarked earlier, I wonder if our condition has not also changed in a way that reduces the relative emphasis upon wage increases as a way of obtaining more consumer goods and increases the importance of spending in the public sector. Wage increases within the limits of productivity remain important, but the wage policies which stocked our shelves with consumer goods may not be those best suited to filling our current necessities.

(c) It is apparent too that attention to domestic progress, while we also gird our loins for a prolonged struggle with communism, will strain our resources and therefore compel closer attention to the results of collective bargaining in terms of their consistency with the overall public interest. Yet to neglect domestic needs because of foreign pressures would also, in the long run, bring sure defeat for the very ideals for which we struggle.

Two Questions

These changes—these pressures—raise two questions:

(a) Must we look forward to a protracted period in which there is less justification for the traditional "more and more and more" measured in terms of expendable dollars?

(b) If so, can collective bargaining evolve new wage policies suited to the new conditions?

In raising these questions I am not referring to any particular industry or to the bargaining of this or any other particular year. Nor do I imply that there is need to question, even for an instant, the desirability of wage increases within the limits of increased productivity.

One might even hazard the guess that collective bargaining will evolve new methods of compensation yielding higher real earnings geared to productivity. If the fear of unemployment were dissipated, a great deal of work could be done by cheaper methods and increased individual and group production.

Conclusions

1. The need for collective bargaining continues as a way of enabling industrial workers to share in the governance of industrial lives, of extending the rule of law, and of increasing their bargaining power, but the job is rounding out and maintaining what has been accomplished rather than creating new ideals and institutions.

2. There will be much greater governmental activity not only in the field heretofore occupied by collective bargaining but also in the areas of employment and industrial relations, now of dominant concern to industrial workers.

3. Despite the increased participation of Government, we will continue to rely upon essentially voluntary methods. The business community and the general public are committed to an open

economy in which there is wide freedom of contract and private citizens make their own decisions. The American labor movement is unique throughout the free world in the depth of attachment to the existing economic system.

I would add that voluntarism is creative. Conflict is a powerful stimulant to both the intellect and the imagination. The strength and creativity of collective bargaining show how successfully new ideas are generated by the process of composing conflicting interests.

Compulsion is not an inescapable ingredient of all government participation. There is a wide range of possibilities between nonintervention and public regulation through orders backed by the force of law. No conference, public or private, no negotiation between opposing interests, even without the intervention of Government, depends exclusively upon the power of intellectual persuasion. Other pressures are always present, backing or resisting the force of reason. This can also be true when the Government participates. The Government can be allowed ample scope to marshal the powers of leadership without being given the power to issue edicts.

4. If we adhere to voluntarism, as indeed we must, then plainly collective bargaining will be the base upon which there is built much wider cooperation with Government. It is tempting to think back upon the tripartitism of World War II. The establishment of the President's Advisory Committee on Labor-Management Policy under the joint chairmanship of the Secretary of Commerce and Secretary of Labor suggests that this may indeed be the first line of development. But whether we begin with one successful overall tripartite board, or by increasing use of vigorous ad hoc tribunals, or perhaps by building numerous continuing bridges between government and collective bargaining, this is likely to be the next area for the use of creative imagination in labor-management relations.

5. The labor movement will be under pressure to devote more time, effort, and financial support to political activity. There is nothing unique in this development. As the role of government expands, every group increases its lobbying and political activities. Organized labor is unique only in the extraordinary breadth of its constituency and, perhaps, in the ability to become the center of progressive forces.

Bar Association's Report on Legal Developments Under LMRDA

EDITOR'S NOTE.—*At the August 1961 convention of the American Bar Association, a Special Committee on Development of the Law of Union Administration and Procedure, composed of labor attorneys Robert G. Howlett, David Previant, and Benjamin Aaron, reported on legal developments connected with the Landrum-Griffin Act. Excerpts from the report are printed herewith. All relevant case documentation has been retained, but certain other footnotes have been omitted.*

LAST YEAR'S COMMITTEE REPORT dealt at length with the investigative procedures of the Department of Labor and with the impact that these investigations have on unions. The unfortunate consequences of inquiries that are eventually dropped without any formal action being taken against a union or its officers are still the principal source of criticism of the administration of the law by both union officials and neutral observers. At public conferences held during the past year to discuss the various titles of the Labor-Management Reporting and Disclosure Act, as well as in letters written to members of this year's committee, the most common criticism of the Government's administration of the law has been that unions are not advised when investigations of complaints against them, or simply spot checks, fail to produce evidence warranting any further action.

Unfortunately, the problem to which these criticisms are directed is not easy to resolve. The Bureau of Labor-Management Reports has explored at length the possibility of devising a form of written notice to the investigated labor organization that will provide it with the assurance it seeks without prejudicing the Government's position in any possible future cases. The difficulty of that task is obvious. The typical investigation, whether it be the result of a specific complaint or merely a spot check, cannot cover the full range of the organization's legal obligations. This means that any assurance given by the Department that no evidence of crime has been dis-

covered must necessarily be effective only as of a specific date and applicable only to the specific matters and persons investigated.

According to spokesmen for the BLMR, the problem is further complicated when, as sometimes happens, the investigation does uncover some evidence of criminal violations of the law, but not enough, in the opinion of responsible officials in the Department of Justice, to secure a conviction. In such cases, the BLMR deems it inadvisable to give any kind of assurance to the investigated organization. Again, the investigation may uncover evidence of violation of another statute. In that event, the BLMR forwards the case to the appropriate agency; it thus has no way of indicating the final result in such a case.

The BLMR also states that its investigations are conducted as quietly as possible, particularly in the early stages. It believes, therefore, that publication of the results, including the non-criminal deficiencies found, might create more difficulties than it would cure.

Finally, BLMR officials point out that its criminal investigations are no different from those conducted by many other branches of Government, including the Federal Bureau of Investigation, the Bureau of Narcotics, the Food and Drug Administration, and the Securities and Exchange Commission. None of these agencies informs the subjects of the outcome of investigations of alleged crimes if no legal actions result.

On the basis of all the foregoing considerations, the BLMR has concluded that there are insuperable obstacles to establishing a policy of publishing the result of any investigation that does not terminate in litigation to the members and officers of the investigated union. In lieu thereof, it will provide a statement of the results of an investigation upon the written request of a person who feels he has been adversely affected by such investigation. The statement will be limited, however, to avoid its misapplication to events outside the scope of the investigation, or to persons other than the correspondent.

This policy seems reasonable under all the circumstances. In some instances, however, investigations have been attended by considerable newspaper publicity. Inasmuch as the BLMR finds it impossible publicly to announce the results of investigations that fail to disclose serious violations

of the statute, it would appear all the more important that its investigators and other personnel refuse to divulge information about current or prospective investigations to the press.

The LMRDA in the Courts

Last year's committee report noted a paucity of cases arising under the LMRDA; since then the number has mounted steadily, although it is still considerably below what was initially predicted by most observers. The reported decisions have clarified a few aspects of the law, but conflicts over the interpretation of some provisions must clearly await decision by the United States Supreme Court for final resolution.

Title I. More cases have arisen under title I than under any other title of the LMRDA. This is not surprising, given the potential reach of its provisions noted in last year's committee report. The majority of the cases involve the substantive rights granted by sections 101(a) (1) and (2),¹ but the exact nature and extent of those rights are still far from clear.

Some of the most difficult questions presented have involved the interplay of the equal rights provisions of title I and the election procedures of title IV. The reported decisions to date (all in the lower Federal courts) hold that section 101(a)(1) does not provide a preelection right to union members to run for office, but the reasoning is somewhat unsatisfactory.

Putting aside the question whether the express provision in title IV of the right to be a candidate precludes the assertion of a similar right under title I,² the court's decision in *Johnson v. San Diego Waiters, Local 500*³ is unsatisfactory because, taken literally, it renders meaningless the express right under section 101(a)(1) to nominate candidates for office. Refusal to enforce the candidate's right to be placed on the ballot is also, in effect, a negation of the nominator's right to nominate. A decision based on the ground either that only the nominator has the right to bring suit in this type of case or that the local bylaw was a "reasonable rule" would have been more persuasive.

An analogous problem is whether title I provides preelection remedies for misconduct in election

procedures. In *Myers v. International Union of Operating Engineers*,⁴ an action founded on title I and brought subsequent to the challenged election, the court declared that if the action had been instituted immediately following the charged wrongdoing, it "could have stopped the so-called illegal procedure before it eventuated in a completed election." Inasmuch as the complaint alleged violation of rights expressly granted in title IV and specifically not guaranteed in title I, the court's dictum in the *Myers* case appears to be in conflict with the holding in the *Johnson* case.

Another critical problem arising under the LMRDA concerns the extent to which unions may limit the rights of members under section 101(a)(1) to participate and vote in union meetings. In *Ragland v. United Mine Workers*⁵ plaintiffs were members of various local unions affiliated with District 50 of the United Mine Workers. They sued to enjoin the international union from holding its convention because it had refused to allow them to send delegates, allegedly in violation of the above-mentioned rights. The question presented was whether the express provision in the charter from the UMW to District 50 that members of that district would have no right to participate in UMW conventions was inconsistent with the provisions of section 101 and should therefore be set aside as required by section 101(b). The court answered in the negative, on the ground that the status of the plaintiffs had remained unchanged for 20 years and that the LMRDA was not intended to alter such a longstanding practice. It also expressed the view that "the act is designed to protect the right to vote and participate where that right exists and not for the purpose of conferring the right to vote and participate . . . where it has not previously existed or should have existed."

¹ Section 101(a)(1) guarantees, subject to reasonable rules and regulations set forth in the union's constitution and bylaws, the equal rights and privileges of members to nominate candidates, to vote in elections or referendums, to attend membership meetings, and to participate in the discussion and voting upon the business of such meetings. Section 101(a)(2) guarantees, also subject to reasonable limitations, the right of union members to "meet and assemble freely with other members, and to express any views, arguments, or opinions"; and to express at union meetings views about candidates in a union election or upon any business properly before such meetings.

² As was stated in last year's committee report, "The whole structure of the statute warns against any easy inference of exclusive remedies, particularly where this may leave a member with no effective remedy."

³ 190 F. Supp. 444 (S.D. Calif. 1961).

⁴ 45 LRRM 8045 (E.D. Mich. 1960).

⁵ 188 F. Supp. 131 (N.D. Ala. 1960).

This point of view seems needlessly restrictive. Significantly, the court did not confine its opinion to a discussion of this issue, but was patently influenced by plaintiffs' delay of 20 years in seeking an injunction to change the status of District 50 as established by its charter, and plaintiffs' failure to pursue administrative channels prior to seeking injunctive relief, no reason for their failure to do so having been shown.

The Secretary of Labor has ruled that unions may prescribe "reasonable rules and regulations" with respect to voting eligibility. They may, "in appropriate circumstances, defer eligibility to vote by requiring a reasonable period of prior membership, such as 6 months or a year, or by requiring apprentice members to complete their apprenticeship training, as a condition of voting." On the other hand, unions may not "create special classes of nonvoting members."⁶

Whether section 101(a)(1) grants to union members the right to vote on the acceptance or rejection of a collective bargaining agreement was the issue involved in *Cleveland Orchestra Committee v. Cleveland Federation of Musicians, Local 4*.⁷ The court ruled that it does not, saying, "The statute does not require that members of a labor organization have the right to vote on the business of negotiating and executing contracts of employment unless such negotiation and execution might become the business of a membership meeting." A similar situation arose in *Davis v. Washington State Council of Carpenters*,⁸ except there the complaint did not challenge the validity of the two collective agreements involved, but alleged that the agreed procedure of submitting a new retirement plan to the membership had not been followed by some of the local unions covered by the agreements. The court denied relief, partly on the ground that the joint bargaining committee of employers and union representatives was not a "labor organization" within the meaning of the LMRDA.

Last year's committee report cited the lower court's decision in *Hughes v. International Asso-*

ciation of Bridge, Structural & Ornamental Iron Workers, Local 11.⁹ denying the right of a member of one local to compel another local of the same international union to accept his transfer. It noted that the rationale and holding of that case left the admission policies of unions "beyond the reach of the statute." Since then, the decision in the *Hughes* case has been reversed on appeal,¹⁰ and the language of the new opinion appears to give some hope to those who believe that all of the rights of union membership should be accorded anyone who had fulfilled all the requirements of such membership. In construing section 3(o) of the statute, the court said in part:

It does not say that a member is one who has been formally admitted to membership. Nor does it say that a member is anyone who has been recognized by a labor organization to be a member. . . . While [Congress] clearly did not intend to dictate the requirements that a labor organization might impose for membership it said very clearly that when all of these requirements have been met by a person that person is a "member."

With respect to section 101(a)(1), the court said:

Thus, the act's protection is extended to those who are everything that members are, to those who are in substance members, despite the fact that the officials of the particular labor organization have not performed the ministerial acts precedent to formal admission and recognition.

Freedom of speech and assembly was one of the issues involved in *Allen v. International Association of Bridge, Structural & Ornamental Iron Workers, Local 92*.¹¹ Plaintiffs had written to the executive board of their union, requesting an investigation of alleged financial irregularities. The letter was not given to the executive board; instead, it was read aloud at a general meeting of the local. There, a motion was passed ordering plaintiffs to appear before the next meeting to explain the letter or to show cause why charges should not be filed against them for writing it. At the next meeting, when plaintiffs attempted to explain the letter, they were shouted down and one of them was invited by one of the local officers to step outside and fight. In the subsequent action, the court ruled, inter alia, that the threat of discipline for writing the letter violated section 101(a)(2), and that the failure to maintain order at the local meeting, as well as the invitation to fight, violated section 101(a)(1).

⁶ 29 CFR § 452.10 (Supp. 1961).

⁷ 42 CCH Lab. Cas. P 16,942 (N.D. Ohio 1961).

⁸ 47 LRRM 2245 (W.D. Wash. 1960).

⁹ 183 F. Supp. 552 (D.N.J. 1960).

¹⁰ 287 F.2d 810 (C.A. 3, 1961), petition for certiorari filed, 30 U.S.L. Week 3026 (U.S. Sup. Ct., July 11, 1961) (No. 211).

¹¹ 47 LRRM 2214 (N.D. Ala. 1960).

Section 101(a)(3), dealing with dues, initiation fees, and assessments, has been considered in only one reported case, *Brooks v. Slate, Tile & Composition Roofers, Local 30*.¹² Plaintiff, a member of the defendant local, sued to restrain the collection of a dues increase which had been allegedly assessed without compliance with the statutory procedure. The new dues rate was based on a "reduction" of the previous fixed monthly rate, but was supplemented by an additional charge for each hour worked. Thus, while the new dues rate on which the local membership voted was stated on the ballot to be a reduction, it was, in fact, an increase. Relief was denied, however, because the court ignoring the statutory technicalities, concluded that there had been no intent by the local officers to deceive the membership, consisting of less than 300 persons, and that the membership had fully understood what they were voting for.

Last year's committee report noted that with respect to the "thorny problems" of section 101(a)(4), protecting the right to sue,¹³ all of the cases then reported had "ignored the most troublesome ambiguity in the section—whether it prescribes the maximum time the courts can require members to pursue union appeals before granting judicial relief, or whether it only limits the union's power to discipline members for seeking legal protection."

The most extensive judicial treatment of these issues to date is in *Detroy v. American Guild of Variety Artists*.¹⁴ In that case, the defendant union interposed failure to exhaust internal remedies as a defense to the plaintiff's claim that he had been disciplined without benefit of the procedural safeguards afforded by section 101(a)(5). The district court, noting a union constitutional provision specifying an appellate procedure as the "exclusive remedy" for claims against the union by its members, and interpreting section 101(a)(4) as requiring a 4-month resort to internal remedies when the union constitution or bylaws prohibits appeals to the courts until internal remedies have been exhausted, dismissed the action.

On appeal, the Second Circuit reversed, holding that exhaustion of internal remedies is not an absolute requirement of section 101(a)(1). The statutory phrase that a member "may be required" to

exhaust internal remedies, said the court, does not mean "must" or "is required to" exhaust them. The court therefore construed the statute to mean that "a member of a labor union who attempts to institute proceedings before a court or an administrative agency may be required by that court or agency to exhaust internal remedies of less than 4 months' duration before invoking outside assistance." Exhaustion was not deemed necessary in this case for a variety of reasons, among which were that the violation of the statute was clear, that the union remedy had not been specifically brought to the attention of the disciplined party, and that it was uncertain that the union constitution provided any procedure for reversing the discipline imposed.

The question of what are "reasonable hearing procedures" within the union has been discussed in several lower court opinions. In *Johnson v. International Brotherhood of Electrical Workers, Local 58*,¹⁵ the court found the procedures unreasonable because of "multiple appellate agencies, their infrequent meetings, and . . . the fact that the constitution does not provide time limits for decision by such . . . agencies." Also, it was uncertain whether the acts of the defendants were punishable under the union constitution.

That internal procedures which cannot be exhausted within a 4-month period must not automatically be held unreasonable was the significant conclusion reached by the court in *Sheridan v. United Brotherhood of Carpenters, Local 626*.¹⁶ Unreasonableness depends on all the surrounding facts and circumstances, the court said, and if the problem raised does not stand in pressing need for immediate decision, the plaintiff may be required to exhaust otherwise reasonable internal remedies for the full 4 months before going to court, even though he has no hope of obtaining final review within that period. This interpretation of the

¹² 187 F. Supp. 365 (E.D. Pa. 1960).

¹³ Section 101(a)(4) protects this right of union members, provided that any member "may be required to exhaust reasonable hearing procedures (but not to exceed a 4-month lapse of time) within such organization, before instituting legal or administrative proceedings. . . ."

¹⁴ 180 F. Supp. 573 (S.D.N.Y. 1960), reversed, 286 F. 2d 75 (C.A. 2, 1961), certiorari denied, 29 U.S.L. Week 3349 (U.S. Sup. Ct., May 22, 1961) (No. 887).

¹⁵ 181 F. Supp. 734 (E.D. Mich. 1960).

¹⁶ 191 F. Supp. 351 (D. Del. 1961).

statute has the obvious merit of compelling union members to resort to their own internal appeals procedures at the outset and of making it worth while for unions to act speedily on such cases.

Last year's committee report noted several cases in which the courts held that officers removed from office without notice or hearing were not protected by the procedural safeguards of section 101(a)(5).¹⁷ The same result has been reached in more recent decisions.¹⁸ In the *Sheridan* case, however, the court found the statute applicable even though the action grew out of the plaintiff's removal from union office. The plaintiff had been charged and tried for misconduct as a union member; he was not removed from office until the charges were sustained. Conceding that, as a union member, plaintiff was not fired, suspended, or expelled, the court found, nevertheless, that "as a member, plaintiff was disciplined" by removal from office as Business Agent.¹⁹ This is the first decision under the LMRDA to draw a distinction between discipline for conduct as an officer or employee and for conduct as a union member.

Title II. Last year's committee report noted that both the reported and unreported cases arising under title II had reflected "a judicial concern for protecting unions from fishing expeditions by their members." More recent cases have indicated, however, that the provision in section 201(c), permitting a union member "for just cause to examine any books, records, and accounts necessary to verify" reports to the Secretary of Labor required by section 201(a), will be enforced. In *Allen v. Bridge, Structural & Ornamental Iron*

*Workers, Local 92*²⁰ plaintiffs had sought, inter alia, to inspect that portion of the defendant union's initial report to the Secretary of Labor dealing with the procedures for the issuance of work permits. Permission to do so had been denied. After taking evidence in open court, the trial judge concluded that there was reasonable ground to believe the local union's procedures violated several provisions of the international constitution. The court ruled that to establish just cause to examine the union's report "it is sufficient that a member . . . show that there is reasonable ground to believe that such report is incomplete or inexact, or that it inadequately explains the information required to be submitted." Proof of actual violation of any law or of any provision in the union's constitution and bylaws is not required.

The meaning of the word "verify" in section 201(c) was passed upon in *Rekant v. Rabinowitz*.²¹ In that case, the union's 1959 report listed expenditures for "Disbursements to Officers," "Office and Administration Expense," and "Other Disbursements," without explaining or breaking down the amounts expended for those items. Plaintiff sought unsuccessfully to examine the union records, and then brought suit under section 201(c). The defense offered was that the complaint made no specific averment that the statements in the report were not true. The court overruled this contention, however, preferring the "wider construction" of the word "verify" as meaning "to check generally on the accuracy or completeness of a statement or statements."

The confusion with respect to remedies available for alleged violations of provisions of the LMRDA relating to union elections has already been briefly adverted to in the discussion of court decisions under title I. As noted in that discussion, as well as in last year's committee report, the Federal courts thus far seem to have interpreted the act as limiting such remedies exclusively to the post-election procedures provided in title IV. It also appears that the requirement of preliminary exhaustion of internal remedies in section 402(a) is being strictly enforced. Thus, in *Rarick v. United Steelworkers of America*,²² when plaintiff sought a temporary restraining order enjoining, inter alia, the election of officers of the defendant union, the court refused to grant the requested relief, on the

¹⁷ Section 101(a)(5) provides that no union member "may be fined, suspended, expelled, or otherwise disciplined except for nonpayment of dues by such organization . . . unless such member has been (A) served with written specific charges; (B) given a reasonable time to prepare his defense; (C) afforded a full and fair hearing."

¹⁸ *Kelly v. Strehlo*, 47 LRRM 2609 (E.D. Mich. 1961); *Allen v. Armored Car Chauffeurs & Guards, Local 880*, 185 F. Supp. 492 (D.N.J. 1960); *Serio v. Liss*, 180 F. Supp. 358 (D.N.J. 1960).

¹⁹ 191 F. Supp. 351 (D. Del. 1961). After first granting a preliminary injunction, the court ruled, on the merits, that plaintiff was entitled to damages, but not to reinstatement as a union officer, since his term had only about a week remaining and the membership obviously did not want him. 48 LRRM 2331 (D. Del. 1961).

²⁰ 47 LRRM 2214 (N.D. Ala. 1960).

²¹ 48 LRRM 2187 (E.D. Pa. 1961).

²² 190 F. Supp. 158 (W.D. Pa. 1960).

ground that there was no showing that plaintiff had exhausted his internal remedies or that he was in danger of suffering immediate or irreparable harm.

Section 403 of title IV provides, however, that "existing rights and remedies to enforce the constitution and bylaws of a labor organization with respect to elections prior to the conduct thereof shall not be affected by the provisions of this title." Presumably, therefore, this preelection remedy can be enforced in State courts.

As Professor Summers has so convincingly demonstrated,²³ however, although the LMRDA preserves State courts as a proper forum for suits prior to election, title IV supplants State substantive law with a complete body of Federal law of elections. The sources of this Federal law, as provided in section 401, are the statutory standards therein prescribed and the union constitution. These two sources are recognized in section 402(a), which provides that a union member may file a complaint with the Secretary of Labor "alleging the violation of any provision of section 401 (including violation of the constitution and bylaws of the labor organization pertaining to the election and removal of officers)." Thus, the confusing language of section 403²⁴ is explicable only if it is interpreted to mean that the preservation of State courts as a proper forum prior to an election and the designation of Federal courts as the exclusive forum after an election does not imply a change of substantive law, which is entirely Federal. As explained by Professor Summers,

Before the election, speed is of the essence and the relief sought is correction of specific defects; this is entrusted to the faster direct suit in equity. After the election, correction is possible only by ordering a new and supervised election; this is entrusted to a slower and more considered procedure of investigation and suit by the Secretary.²⁵

On the basis of the foregoing analysis, Professor Summers concludes that Congress did not intend to limit the scope of preelection remedies in State courts to cases in which the union's constitution has been violated. Since the State court is enforcing Federal substantive law in any case, he argues that there is no reason why it should not enforce the full body of Federal law, regardless of whether the source is the union constitution or the statutory standards.

The importance of providing adequate scope for preelection remedies is made apparent by the

history of those postelection actions instituted by the Secretary of Labor to date. As of June 9, 1961, 13 cases had been started, and none of these had yet come to trial, although one was disposed of immediately prior to trial by the issuance of a consent decree overturning a challenged election and ordering a new one. One of the most important of these cases, *Mitchell v. National Maritime Union*,²⁶ was filed in October 1960, and is still awaiting trial. Since under section 402(a) challenged elections are presumed valid pending final decision, postelection remedies may well be virtually useless in some instances.

Title V. The leading case involving the nature of the fiduciary obligations imposed by section 501 of the LMRDA is *Highway Truck Drivers v. Cohen*,²⁷ discussed in last year's committee report. In that case, the trial judge said in part:

There are undoubtedly situations in which a suit against a union officer would have a direct and injurious effect upon the union itself or would in reality be directed at the union. In such a situation, the union would have the power to lend its financial support to such officer. When the question of whether the union has a sufficient interest to spend large sums of money to defend such a suit arises, it must ultimately be resolved by the court.

In two recent cases,²⁸ the District Court for the District of Columbia has denied motions by a defendant union for permission to provide and pay for legal counsel for union officers charged with conspiracy to misappropriate union funds and to conceal such misappropriation. The court found in these cases that the interests of the individual defendant officers and the interests of the defendant union were in conflict.

A more interesting question is raised by the recent action of the Teamsters convention [approving use of union funds for defense of local and

²³ Clyde Summers, "Preemption and the Labor Reform Act—Dual Rights and Remedies," *Ohio State Law Journal*, Winter 1961, pp. 135-140.

²⁴ "No labor organization shall be required by law to conduct elections of officers with greater frequency or in a different form or manner than is required by its own constitution or bylaws, except as otherwise provided by this title. Existing rights and remedies to enforce the constitution and bylaws . . . with respect to elections prior to the conduct thereof shall not be affected by the provisions of this title. The remedy provided by this title for challenging an election already conducted shall be exclusive."

²⁵ Summers, *op. cit.*, p. 137.

²⁶ Civil No. 3821-60, S.D.N.Y., Oct. 3, 1960.

²⁷ 182 F. Supp. 608 (E.D. Pa. 1960), affirmed, 284 F. 2d 162 (C.A. 3, 1960), certiorari denied, 365 U.S. 833 (1961).

²⁸ *Moschetti v. Cross*, 43 CCH Lab. Cas. P 17,057 (D.D.C. 1961); *Alvino v. Bakery & Confectionery Workers*, 43 CCH Lab. Cas. P 17,058 (D.D.C. 1961).

international officials charged with violation of law or sued in a civil action under certain circumstances].

Whether these authorizations for the expenditure of union funds go beyond the permissible limits suggested by the dictum of the court in the *Cohen* case quoted above, and if so, whether they will be held lawful under the LMRDA, are questions likely to arise in future litigation.

Title VI. Reference has been made in section II of this report [not excerpted] to investigations by the Secretary of Labor under section 601 of the LMRDA. The principal case is *Mitchell v. Truck Drivers*.²⁹ In that case, the court declined to compel the defendant local unions to comply with broad subpoenas duces tecum issued by the Department of Labor, in the absence of any claim or showing by the Secretary that the defendant local unions had or were likely to violate the LMRDA. In its opinion, the trial court expressed the view that "the requirement of when 'he deems it necessary' (section 601) has its foundation in some reason or purpose, rather than being an excuse for merely looking into the matters of union affairs, relevant or irrelevant, in the hope of something turning up . . . without some reasonable foundation or valid purpose." The court seemed especially disturbed about the possibility of the unions' membership lists being delivered by the Secretary to "interested parties" seeking to destroy the unions, and went so far as suggesting that enforcement of the subpoenas might infringe upon the rights of voluntary associations protected by the fourth amendment.

The Department of Labor has appealed from the decision in *Mitchell v. Truck Drivers*, and the case is now before the Court of Appeals for the Sixth Circuit. Meanwhile, the Secretary has brought a new action in the District of Columbia to compel compliance with a similar subpoena for the records of the International Brotherhood of Teamsters.³⁰ He argues that the requirement of showing of probable cause, as a condition precedent to judicial enforcement of a subpoena duces tecum, "effectively thwarts the Secretary's efforts to execute the investigatory duties placed upon him by the act."³¹

Employment in the Atomic Energy Field

ENGINEERS, scientists, and supporting technical workers accounted for about one-third of the 126,000 workers employed by major Atomic Energy Commission (AEC) contractors in January 1960, according to a Bureau of Labor Statistics survey of employment in the atomic energy field.¹ This high proportion of professional and supporting technical workers, reflects the concentration on research and development work in the atomic energy field and the highly technical nature of its production activities.

In addition to the large number of engineers, scientists, and supporting technical workers, the plants and laboratories of the AEC contractors also employed many skilled workers—representing nearly 20 percent of total employment—in such work as the fabrication of experimental apparatus and the maintenance of complex machinery and equipment. There were nearly as many skilled workers employed as all other blue-collar workers combined. Many workers were also employed in managerial and administrative positions (10 percent of total employment) and in clerical and other office jobs (15 percent).

On a primary work function basis,² approximately half of the workers surveyed were engaged in the fabrication and manufacture (production and operations) of products, such as reactors, fuel elements, and nuclear fuels. A particularly large proportion, about 30 percent, were engaged in research and development work. Seventy-two percent of the skilled workers were in production and operations. On the other hand, 84 percent of all scientists, 54 percent of the engineers, and 51 percent of the technicians were in research and development.

¹ The survey, which was conducted by mail questionnaire, covered 158 establishments and about two-thirds of all workers estimated to be employed in the atomic energy field. The survey covered all workers in some atomic energy activities—such as uranium milling and the production of feed materials and enriched uranium—but only a portion of the workers in other activities—such as the manufacture of nuclear reactors. The tables in this article refer only to employment in the 158 establishments surveyed, and not to the entire atomic energy field. For the full report on the survey, see *Employment in the Atomic Energy Field: A 1960 Occupational Survey*, BLS Bull. 1297, prepared for the U.S. Atomic Energy Commission by the Bureau of Labor Statistics.

² All establishments were asked to classify their employees according to the work functions in which the employees were primarily engaged—research and development, production and operations, construction, or all other.

²⁹ 47 LRRM 2586 (E.D. Mich. 1961).

³⁰ 48 LRR 166.

³¹ Brief for Appellant, p. 11, *Goldberg v. Truck Drivers* (C.A. 6, 1961).

TABLE 1. EMPLOYMENT IN THE ATOMIC ENERGY FIELD, BY SEGMENT AND OCCUPATIONAL GROUP, JANUARY 1960

| Segment | Number of establishments | Employment | | Percent distribution by occupational group | | | | | | | | | |
|--|--------------------------|------------|---------|--|-----------|------------|-------------|---------------------------|----------------------|--------------------|-----------------|---------------------------|------------|
| | | Number | Percent | All employees | Engineers | Scientists | Technicians | Other technical personnel | Managerial personnel | Clerical personnel | Skilled workers | Nuclear reactor operators | All others |
| Total, all segments..... | 158 | 125,921 | 100.0 | 100.0 | 12.0 | 7.5 | 11.6 | 3.0 | 9.9 | 14.7 | 19.0 | 0.7 | 21.6 |
| Atomic Energy Commission research facilities..... | 19 | 42,172 | 33.5 | 100.0 | 15.2 | 13.2 | 17.1 | 4.4 | 9.1 | 17.4 | 11.6 | 0.3 | 11.7 |
| Defense production facilities..... | 11 | 35,590 | 28.3 | 100.0 | 7.3 | 2.8 | 6.8 | 2.7 | 10.8 | 13.0 | 23.8 | 1.7 | 31.1 |
| Reactor manufacture..... | 16 | 11,760 | 9.3 | 100.0 | 21.1 | 6.1 | 13.4 | 2.0 | 9.3 | 16.9 | 11.1 | .7 | 19.4 |
| Production of feed materials and enriched uranium..... | 6 | 11,717 | 9.3 | 100.0 | 6.0 | 4.3 | 7.0 | .3 | 12.7 | 13.1 | 36.1 | 0 | 20.5 |
| Construction of nuclear facilities..... | 12 | 6,575 | 5.2 | 100.0 | 23.7 | .3 | 6.6 | 7.8 | 6.1 | 13.7 | 28.9 | 0 | 12.9 |
| Private research laboratories..... | 34 | 5,295 | 4.2 | 100.0 | 13.6 | 26.3 | 24.2 | 2.2 | 7.0 | 11.6 | 5.5 | .3 | 9.3 |
| Production of special materials..... | 10 | 3,584 | 2.9 | 100.0 | 2.7 | 1.7 | 6.9 | .1 | 12.0 | 11.3 | 22.0 | 0 | 43.3 |
| Uranium milling..... | 26 | 3,432 | 2.7 | 100.0 | 3.3 | 2.6 | 5.7 | 1.0 | 9.2 | 7.9 | 26.8 | 0 | 43.5 |
| Fuel element fabrication..... | 8 | 2,935 | 2.3 | 100.0 | 8.6 | 3.7 | 11.0 | .1 | 8.5 | 13.3 | 11.6 | 0 | 43.2 |
| Power reactor operation..... | 9 | 366 | .3 | 100.0 | 27.9 | 4.1 | 11.7 | .3 | 8.2 | 10.9 | 1.4 | 7.4 | 28.1 |
| Miscellaneous..... | 7 | 2,527 | 2.0 | 100.0 | 3.4 | .5 | 3.6 | .6 | 13.0 | 16.3 | 29.9 | 0 | 32.7 |

Nature of the Atomic Energy Field

The atomic energy field covers many different kinds of research and industrial activities³ which are directed toward inquiring into the nature of the energy contained within the atom and the development and use of this energy. These activities are performed in plants in many different industries, as well as in laboratories and other types of facilities. Much of this work, such as ore mining and milling and the construction of facilities, differs little from similar nonatomic energy work. Other activities, such as manufacture of the fuels needed to run reactors, are unique to the atomic energy field.

Employment by Segment

Since employment patterns vary markedly among establishments engaged in different activities (for example, as between a uranium mill and a research laboratory), the surveyed establishments were classified into 10 segments (and 1 miscellaneous group) of the atomic energy field on the basis of the primary activity in which they were engaged.

In the portion of the atomic energy field covered by this survey, the two largest fields of employment in 1960 were the AEC-owned research and development facilities (accounting for 34 percent of total employment) operated for the Commission by educational institutions and industrial concerns, and the atomic energy facilities producing defense materials (28 percent). (See table 1.) Among the remaining surveyed activities, the design and manufacture of nuclear reactors and the produc-

tion of feed materials and enriched uranium (reactor fuel) each accounted for 9 percent of total employment. Five percent of the surveyed employees were engaged in the design and construction of nuclear facilities and another 4 percent were working in private research laboratories. Most of the remaining 10 percent were employed in the production of special materials, such as beryllium and zirconium, for use in reactors, the milling of uranium ore, and the fabrication of nuclear reactor fuel elements.⁴

The distribution of employment by occupational group varied considerably among the different segments of the atomic energy field, reflecting the kinds of work conducted within each segment. Engineers, scientists, and supporting technical personnel, as a percentage of total employment, ranged from 66 percent in private research laboratories and 50 percent in AEC research facilities to 13 percent in uranium mills and 11 percent in plants producing special materials. Skilled workers varied from about 36 percent of total employment in plants producing feed

³ The atomic energy field is not an "industry" as this term is customarily used for classification purposes. The Standard Industrial Classification Manual (U.S. Bureau of the Budget, 1957), which classifies establishments by type of activity in which engaged, defines an industry as "a grouping of establishments primarily engaged in the same or similar lines of economic activity." The atomic energy field, as used in BLS employment and occupational surveys, includes all activities directed toward the development and use of atomic energy and, therefore, includes establishments in many different industries.

⁴ The proportion of the surveyed employees working in any of the activities into which the atomic energy field has been divided is not necessarily representative of the proportion of total employment accounted for by that activity in the entire atomic energy field. For example, this survey covered all AEC research facilities. However, only a portion of establishments engaged in reactor manufacture were covered; those establishments not covered were not major AEC prime contractors.

materials and enriched uranium to about 6 percent in private research laboratories.

Employment by Occupation

Engineers. About 15,100 engineers were employed by the surveyed establishments in January 1960, accounting for 12 percent of the total establishment personnel (table 2). Engineering employment ranged from over 20 percent of total employment in the construction of nuclear facilities and the manufacture of nuclear reactors to about 3 percent in the milling of uranium and in the production of special materials.

Mechanical engineers comprised the largest single group among the engineers employed by the surveyed establishments, with electrical and electronics engineers constituting the second largest group. Many chemical, reactor⁵ (specialists in nuclear reactor technology), metallurgical, and civil engineers were also employed. More than half of the engineers (54 percent) were working in research and development, including about 80 percent of the reactor engineers and 70 percent of the metallurgical engineers.

⁵ While "reactor engineer" was listed separately on the questionnaire, it is not universally recognized as a separate engineering discipline such as mechanical or chemical engineer. Therefore, personnel classified as reactor engineers in one establishment might be classified as mechanical or chemical engineers by another establishment, even though performing similar work. Reporting on this occupation may, therefore, have a large margin of error.

Scientists. About 9,500 scientists were employed in the surveyed establishments in January 1960, accounting for almost 8 percent of total employment. Compared with most industries or other fields of work, this represents a large proportion of scientists to total employment, largely reflecting the considerable amount of basic and applied research done in the atomic energy field. Eighty-four percent of the scientists were working in research and development. Scientists accounted for 28 percent of total employment in private research laboratories and 13 percent in AEC research facilities. In all other activities, they accounted for 6 percent or less of total employment.

Physicists and chemists together accounted for more than two-thirds of the total number of scientists employed. Nearly all of the physicists—91 percent—and about three-fourths of the chemists were engaged in research and development work. Mathematician, metallurgist, and biological scientist were other scientific occupations with substantial employment. About 80 percent of the mathematicians, 88 percent of the metallurgists, and 97 percent of the biological scientists were working in research and development. Many health physicists, who are responsible for the radiological safety of personnel at atomic energy facilities, were also employed.

Technicians and Other Technical Personnel. A large number of technicians and other technical

TABLE 2. EMPLOYMENT IN THE ATOMIC ENERGY FIELD BY OCCUPATION, JANUARY 1960

| Occupation | Number | Percent | Occupation | Number | Percent |
|--|---------|---------|---|--------|---------|
| Total employment..... | 125,921 | 100.0 | Other technical personnel..... | 3,744 | 3.0 |
| Engineers..... | 15,112 | 12.0 | Designers..... | 1,160 | .9 |
| Mechanical..... | 4,391 | 3.5 | Other technical personnel..... | 2,584 | 2.1 |
| Electrical and electronics..... | 3,015 | 2.4 | Managerial personnel..... | 12,417 | 9.9 |
| Chemical..... | 1,820 | 1.4 | Clerical personnel..... | 18,537 | 14.7 |
| Reactor..... | 1,724 | 1.4 | Skilled workers..... | 23,881 | 19.0 |
| Metallurgical..... | 916 | .7 | Maintenance mechanics (including machinery repairmen and millwrights)..... | 3,635 | 2.9 |
| Civil..... | 905 | .7 | Chemical operators..... | 3,227 | 2.6 |
| Other engineers..... | 2,341 | 1.9 | Machinists (all-round)..... | 3,071 | 2.4 |
| Scientists..... | 9,488 | 7.5 | Electricians..... | 2,256 | 1.8 |
| Physicists..... | 3,431 | 2.7 | Plumbers, pipefitters, and steamfitters..... | 1,456 | 1.2 |
| Chemists..... | 3,057 | 2.4 | Welders..... | 1,320 | 1.0 |
| Mathematicians..... | 760 | .6 | Instrument repairmen (including instrument mechanics)..... | 1,269 | 1.0 |
| Metallurgists..... | 603 | .5 | Carpenters..... | 717 | .6 |
| Biological scientists..... | 475 | .4 | Sheet-metal workers..... | 640 | .5 |
| Health physicists..... | 377 | .3 | Instrument makers (including experimental machinists and others who fabricate instruments)..... | 537 | .4 |
| Other natural scientists..... | 780 | .6 | Tool and die makers..... | 504 | .4 |
| Technicians..... | 14,612 | 11.6 | Boilermakers..... | 114 | .1 |
| Draftsmen..... | 2,660 | 2.1 | Other skilled trades..... | 5,120 | 4.1 |
| Engineering and physical science: | | | Nuclear reactor operators..... | 891 | .7 |
| Electronics..... | 2,036 | 1.6 | All others..... | 27,249 | 21.6 |
| Instrument..... | 627 | .5 | | | |
| Other..... | 6,100 | 4.8 | | | |
| Health physics..... | 720 | .6 | | | |
| Medical, agricultural, and biological..... | 569 | .5 | | | |
| Other technicians..... | 1,900 | 1.5 | | | |

personnel (such as designers and technical writers) are employed in the atomic energy field to assist engineers and scientists in research and development work and in the designing and testing of equipment and materials. About 14,600 technicians⁶ were employed in the surveyed establishments, accounting for approximately 12 percent of total employment. Half (51 percent) of these technicians assisted engineers and scientists in research and development work. In private research laboratories, technicians constituted 24 percent of total employment; in AEC research facilities, 17 percent; and in all other activities, 13 percent or less. The more than 3,700 employees classified as other technical personnel accounted for 3 percent of total employment.

The largest individual occupation among the technicians was that of draftsman. The surveyed establishments also employed many electronics technicians, instrument technicians, and other engineering and physical science technicians. Among the remaining technicians were health physics technicians (also called radiation monitors), who aid health physicists in the radiation protection of workers, and medical, agricultural, and biological technicians.

Skilled Workers. The largest occupational group in the establishments surveyed was the skilled worker group—representing 19 percent of total employment. They accounted for 36 percent of the workers engaged in the production of feed materials and enriched uranium and between 25 and 30 percent of the workers employed in the construction of nuclear facilities and in the milling of uranium. On the other hand, they accounted for only about 6 percent of employment in private research laboratories and about 12 percent in AEC research facilities, reactor manufacturing plants, and in fuel element fabrication plants.

Maintenance mechanics, including machinery repairmen and millwrights, accounted for about 15 percent of the skilled workers; chemical operators, 14 percent; and all-round machinists, 13 percent. Maintenance mechanics were employed in all segments of the atomic energy field and

all-round machinists in most segments. Over 80 percent of the chemical operators were employed in the production of defense materials and the production of feed materials and enriched uranium. In contrast to the chemical operators and maintenance mechanics, nearly all of whom were employed in production and maintenance work, over one-fourth of the all-round machinists were working in research and development.

In addition to the above skilled occupations, a large number of electricians and many carpenters and plumbers, pipefitters, and steamfitters were also employed. Construction firms employed many of these workers in the construction of facilities, while establishments in other areas of work employed many of them in maintenance work. Many welders, sheet-metal workers, and instrument repairmen were also employed.

Other Occupations. Clerical and other office personnel made up the second largest occupational group. They accounted for about 15 percent of total employment, but their proportion of total employment ranged from as low as 8 percent in uranium mills to as high as 17 percent in AEC research facilities and in reactor manufacturing plants. The employment of managerial, administrative, and other professional (other than scientific and technical) personnel varied from a low of 6 percent of total employment in construction firms and 7 percent in private research laboratories to 13 percent in plants producing feed materials and enriched uranium. The managerial occupational group represented about 10 percent of employment for all segments combined.

The surveyed establishments employed nearly 900 nuclear reactor operators. The work performed by a reactor operator in a nuclear power station is basically the same as the work of a boiler operator, except that the reactor operator operates the controls of a nuclear reactor rather than the controls of a conventional boiler.

The balance of the employees (22 percent of total employment) in the surveyed establishments were semiskilled and unskilled workers engaged in production and maintenance work and service workers. Many of the service workers were in plant protection or security work.

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Division of Manpower and Employment

⁶ The term "technician" was defined in the questionnaire as a person engaged in work requiring knowledge of physical, engineering, mathematical, biological, or other natural sciences comparable with knowledge acquired through a technical institute, junior college, or other formal post-high-school training, or through equivalent on-the-job training or experience.

Earnings in the Machinery Industries, March-May 1961

AVERAGE STRAIGHT-TIME hourly earnings of production and related workers in the nonelectrical machinery industries rose by 3.1 percent during the past year in 21 areas surveyed by the Bureau of Labor Statistics in March-May 1961.¹

Detroit, with average straight-time hourly earnings above \$3.15 for most skilled jobs studied, continued to lead in pay levels for machinery workers among the areas studied. Tool and die makers were generally the highest paid occupational group studied, averaging more than \$3 an hour in a majority of the areas.

Characteristics of the Machinery Industries

Machinery (nonelectrical) manufacturing, as defined for this study, includes a group of metalworking industries whose products differ greatly in size, complexity, and use. For example, some establishments were primarily engaged in the production of ball and roller bearings, whereas others manufactured such items as industrial machinery, precision metalworking tools, or electronic computing machines. In the 21 areas combined, approximately one-fifth of the workers were employed in each of three industry groups—construction, mining, and material handling machinery and equipment; metalworking machinery and equipment; and general industrial machinery and equipment.

Various types of machinery were manufactured in each of the areas studied. In some areas, however, a substantial proportion of the workers were engaged in the production of a particular group of machinery items. For example, a large percentage of the workers were employed in the manufacture of farm machinery and equipment in Milwaukee, oilfield machinery and equipment in Dallas and Houston, and metalworking machinery and equipment in Cleveland, Detroit, Pittsburgh, and Worcester.

At the time of the survey, estimated employment in the machinery industries in the areas varied from less than 3,500 in Denver and Portland (Oreg.) to 77,000 in Chicago. Other major areas included Detroit (59,000), Milwaukee

(49,000), Los Angeles-Long Beach (37,000), and Cleveland (35,000).

Approximately two-fifths of the estimated one-half million workers in the machinery industries in the 21 areas were employed in establishments with fewer than 250 workers, another two-fifths in establishments with 250 to 2,499 workers, and one-fifth in establishments employing 2,500 workers or more. The latter establishment-size group accounted for a majority of the workers in Hartford and Milwaukee and almost one-half in Philadelphia. In contrast, establishments with fewer than 250 workers employed a majority of the workers in Dallas, Denver, Los Angeles-Long Beach, New York City, Portland, and San Francisco-Oakland, and almost one-half in Boston, Chicago, and Detroit.

The latest data concerning unionization, the prevalence of incentive wage payments, work schedules, and supplementary wage benefits were obtained in the 1959-60 survey.² Wages in the machinery manufacturing industries are studied each year by the Bureau, while the items just listed are surveyed on a 2-year cycle, as part of the Bureau's program of occupational wage surveys.

Trends in Earnings

Average straight-time hourly earnings of production workers in the 21 areas studied rose 3.1 percent between the winter of 1959-60 and March-May 1961, compared with an increase of 4.1 percent between the winters of 1958-59 and 1959-60.

In a majority of the areas, changes in average straight-time hourly pay levels between the pay periods studied in 1960 and 1961 were within a range of 3 to 4.5 percent (table 1). The increase was greatest in Minneapolis-St. Paul (5.9 percent). Average changes in two areas amounted to less than 2 percent. Variations in wage move-

¹ A more comprehensive account of the survey will be presented in forthcoming BLS Bull. 1309, *Industry Wage Survey: Machinery, March-May 1961*.

The study included establishments classified in Industry Group 35, as defined in the 1957 Standard Industrial Classification Manual prepared by the U.S. Bureau of the Budget. Omitted from the survey were (1) establishments employing fewer than 8 workers and primarily engaged in manufacturing special dies and tools, die sets, jigs, fixtures, machine tool accessories, and measuring devices, and (2) other nonelectrical machinery establishments employing fewer than 20 workers. For definition of areas covered, see table 2, footnote 2.

² See "Earnings in the Machinery Industries, 1959-60," *Monthly Labor Review*, September 1960, pp. 939-945.

ments among areas may be partly attributable to the timing and frequency of wage negotiations among establishments in the areas.

General wage changes usually account for most of the year-to-year movement in earnings; however, other factors such as labor turnover, incentive earnings, and changes in employment in establishments with different pay levels, also affect the trend in wages. Thus, during a period of declining economic activity, an increase in the overall level of wages may reflect a reduction in the proportion of workers with the least seniority and the lowest level of earnings, rather than any adjustment in individual rates. During periods of expansion, the reverse may be true.

The extent of wage movements varied between the skilled and unskilled occupations studied, as well as among areas. For the 21 areas combined, average straight-time hourly earnings of tool and die makers (other than jobbing) rose 3.6 percent, or about 11 cents an hour during 1960, compared with an increase of 4.0 percent, or about 8 cents, for material handling laborers. Since 1945, when the first occupational wage relationship study was conducted for the machinery industries, there has been a substantial reduction in the percentage differentials between the wages of these two groups. During this period, average earnings of material handling laborers increased by 169.7 percent, while earnings of tool and die makers increased by 126.7 percent. Most of the narrowing occurred between 1945 and 1953, largely because of cents-per-hour increases granted "across the board." Since January 1956, average hourly earnings of workers in these job classifications have increased about 26 and 23 percent, respectively. Between 1959 and 1960, the percentage increase was slightly greater for tool and die makers than for laborers.

Levels of Earnings, March-May 1961

Highest average straight-time hourly earnings for the occupations studied in the 21 areas in March-May 1961 were most often found in Detroit. (See table 2.) Other areas commonly ranking in the upper one-fourth included Milwaukee, Pittsburgh, and San Francisco-Oakland. For most occupations, average hourly earnings were lowest in Dallas. Baltimore, Boston, New York City, and Worcester also ranked compara-

tively low for several occupations. Differences between the highest and the lowest area average hourly earnings for most occupations ranged from 80 cents to \$1.10.

Tool and die makers were the highest paid occupational group studied in most areas. Men engaged in the production or maintenance of tools and dies used in the establishments in which they were employed had average earnings of \$3 or more in 13 of the 21 areas. Their average earnings ranged from \$2.65 an hour in Dallas to \$3.53 in San Francisco-Oakland. Machine-tool operators (class A), who set up their own machines and perform a variety of machining operations to close tolerances, had average hourly earnings ranging from \$2.35 in Dallas to \$3.19 in Detroit; in about half of the areas, their average earnings were

TABLE 1. INDEXES¹ OF AVERAGE STRAIGHT-TIME HOURLY EARNINGS² OF PRODUCTION WORKERS IN MACHINERY MANUFACTURING IN SELECTED AREAS AND OCCUPATIONS, MARCH-MAY 1961 AND JANUARY 1960, AND PERCENT INCREASES FOR SELECTED PERIODS³

| Area and occupation | Indexes (1947-49=100) | | Percent increases from— | | | |
|--|--------------------------|--------------|---|---------------------------------|---------------------------------|---|
| | Mar.- May 1961 | Jan. 1960 | Jan. 1960 to Mar.- May 1961 | Jan. 1959 to Jan. 1960 | Jan. 1958 to Jan. 1959 | Jan. 1945 to Mar.- May 1961 |
| AREA | | | | | | |
| All areas combined ⁴ | 173.7 | 168.6 | 3.1 | 4.1 | 3.3 | 142.4 |
| Baltimore..... | 181.7 | 174.2 | 4.3 | 2.8 | 6.1 | 151.1 |
| Boston..... | 171.9 | 164.8 | 4.3 | 5.1 | 4.6 | 147.0 |
| Buffalo..... | 176.1 | 169.3 | 4.0 | 3.4 | 2.7 | 132.2 |
| Chicago..... | 170.0 | 167.5 | 1.5 | 4.3 | 3.8 | 143.6 |
| Cleveland..... | 167.7 | 164.2 | 2.1 | 6.8 | 2.1 | 129.5 |
| Dallas..... | 162.7 | 157.8 | 3.1 | 3.0 | 3.5 | 110.1 |
| Detroit..... | 173.0 | 168.4 | 2.8 | 4.1 | 2.3 | 122.6 |
| Hartford..... | 178.8 | 170.8 | 4.7 | 4.7 | 3.1 | 150.1 |
| Houston..... | 169.2 | 169.6 | — .2 | 7.4 | .9 | 128.9 |
| Los Angeles-Long Beach..... | 171.2 | 166.2 | 3.0 | 4.0 | 2.5 | 122.5 |
| Milwaukee..... | 179.2 | 173.2 | 3.5 | 3.9 | 3.3 | 164.3 |
| Minneapolis-St. Paul.. Newark and Jersey City..... | 176.2 | 166.4 | 5.9 | 3.9 | 2.7 | 146.0 |
| New York City..... | 166.6 | 160.0 | 4.1 | 1.4 | 4.4 | 127.0 |
| Philadelphia..... | 163.1 | 156.8 | 4.0 | 2.9 | 1.3 | 130.6 |
| Pittsburgh..... | 175.6 | 170.2 | 3.2 | 4.2 | 5.0 | 146.5 |
| Pittsburgh..... | 188.2 | 183.0 | 2.9 | 2.8 | 5.5 | 170.6 |
| St. Louis..... | 183.1 | 175.4 | 4.4 | 3.7 | 3.5 | 170.6 |
| San Francisco-Oak- land..... | 181.3 | 176.1 | 3.0 | 2.5 | 8.5 | 137.1 |
| OCCUPATION | | | | | | |
| Laborers, material han- dling..... | 184.9 | 177.8 | 4.0 | 3.4 | 4.7 | 169.7 |
| Tool and die makers (other than jobbing)... | 170.8 | 164.9 | 3.6 | 3.9 | 4.1 | 126.7 |

¹ For the methodology used in constructing the indexes, see "Wage Trends in Machinery Manufacturing, 1945-51," *Monthly Labor Review*, January 1952, footnote 1, p. 48. Beginning with the indexes for January 1953, constant weights for occupations, based on average employment for 1953 and 1954, were used.

² Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

³ Data for the periods shown as January cover various months of the winter.

⁴ Includes data for 3 areas (Denver, Portland (Ore.), and Worcester) not shown separately.

⁵ This decrease is due to changes in incentive earnings and in the proportions of workers in some job classifications in establishments of different pay levels.

TABLE 2. AVERAGE STRAIGHT-TIME HOURLY EARNINGS¹ OF MEN IN SELECTED PRODUCTION OCCUPATIONS IN MACHINERY MANUFACTURING ESTABLISHMENTS IN 21 AREAS,² MARCH-MAY 1961

| Occupation | New England | | | Middle Atlantic | | | | | South | | |
|--|-------------|----------|-----------|-----------------|------------------------|---------------|--------------|------------|-----------|--------|---------|
| | Boston | Hartford | Worcester | Buffalo | Newark and Jersey City | New York City | Philadelphia | Pittsburgh | Baltimore | Dallas | Houston |
| Assemblers, class A..... | \$2.70 | \$2.71 | \$2.62 | \$2.70 | \$2.85 | \$2.65 | \$2.66 | \$3.07 | \$2.91 | \$2.16 | \$2.58 |
| Assemblers, class B..... | 2.34 | 2.32 | 2.29 | 2.50 | 2.30 | 2.22 | 2.27 | 2.79 | 2.28 | 1.74 | 2.26 |
| Assemblers, class C..... | 1.93 | 1.97 | 2.13 | 2.33 | 2.21 | 2.09 | 1.89 | 2.44 | 1.89 | 1.43 | 2.13 |
| Electricians, maintenance..... | 2.70 | 2.76 | 2.59 | 2.74 | 2.91 | 2.86 | 2.92 | 3.03 | 2.70 | 2.41 | 2.97 |
| Inspectors, class A..... | 2.66 | 2.44 | 2.52 | 2.78 | 2.66 | 2.80 | 2.73 | 3.25 | 2.95 | 2.41 | 2.79 |
| Inspectors, class B..... | 2.37 | 2.36 | 2.46 | 2.61 | 2.49 | 2.35 | 2.82 | 2.70 | 2.74 | 1.95 | 2.71 |
| Inspectors, class C..... | 2.08 | 2.26 | 2.56 | 2.33 | 2.33 | 1.71 | 2.64 | 2.00 | 2.00 | 1.25 | 2.35 |
| Janitors, porters, and cleaners..... | 1.76 | 1.98 | 1.89 | 2.01 | 1.77 | 1.80 | 1.97 | 2.21 | 1.61 | 1.47 | 1.84 |
| Laborers, material handling..... | 2.02 | 2.03 | 2.01 | 2.21 | 2.04 | 2.04 | 2.10 | 2.26 | 1.80 | 1.42 | 1.90 |
| Machine-tool operators, production, class A..... | 2.64 | 2.71 | 2.52 | 2.64 | 2.73 | 2.65 | 2.77 | 3.02 | 2.61 | 2.35 | 2.69 |
| Machine-tool operators, production, class B..... | 2.29 | 2.52 | 2.33 | 2.41 | 2.58 | 2.26 | 2.72 | 2.71 | 2.44 | 2.00 | 2.56 |
| Machine-tool operators, production, class C..... | 1.89 | 2.45 | 2.05 | 2.41 | 2.12 | 1.83 | 2.31 | 2.51 | 1.94 | 1.67 | 2.19 |
| Machine-tool operators, toolroom..... | 2.54 | 2.93 | 2.43 | 2.84 | 2.79 | 2.67 | 2.90 | 2.93 | 2.74 | 2.49 | 2.86 |
| Machinists, production..... | 2.47 | 2.51 | 2.51 | 2.69 | 2.53 | 2.53 | 2.68 | 3.34 | 2.90 | 2.41 | 2.51 |
| Tool and die makers (jobbing)..... | 2.90 | 2.70 | 2.87 | 2.97 | 2.96 | 2.96 | 3.08 | 3.11 | 2.80 | 2.65 | 3.04 |
| Tool and die makers (other than jobbing)..... | 2.87 | 2.88 | 2.68 | 2.96 | 3.01 | 3.00 | 3.25 | 3.11 | 2.80 | 2.65 | 3.04 |
| Welders, hand, class A..... | 2.49 | 2.88 | 2.65 | 2.74 | 2.84 | 2.61 | 2.78 | 2.90 | 2.66 | 2.22 | 2.77 |
| Welders, hand, class B..... | 2.10 | 2.34 | 2.48 | 2.51 | 2.43 | 2.43 | 2.43 | 2.63 | 2.34 | 1.84 | 2.62 |

| Occupation | Middle West | | | | | | Far West | | | |
|--|-------------|-----------|---------|-----------|----------------------|-----------|----------|------------------------|----------|-----------------------|
| | Chicago | Cleveland | Detroit | Milwaukee | Minneapolis-St. Paul | St. Louis | Denver | Los Angeles-Long Beach | Portland | San Francisco-Oakland |
| Assemblers, class A..... | \$2.79 | \$2.89 | \$3.19 | \$3.02 | \$2.56 | \$2.60 | \$2.74 | \$2.71 | \$2.90 | \$3.04 |
| Assemblers, class B..... | 2.51 | 2.71 | 2.69 | 2.74 | 2.32 | 2.45 | 2.34 | 2.29 | 2.63 | 2.70 |
| Assemblers, class C..... | 2.10 | 2.43 | 2.51 | 2.54 | 2.08 | 2.12 | 2.10 | 2.05 | 2.44 | 2.44 |
| Electricians, maintenance..... | 3.10 | 3.00 | 3.34 | 3.08 | 2.82 | 3.04 | 2.78 | 2.91 | 3.23 | 3.23 |
| Inspectors, class A..... | 2.82 | 2.81 | 3.19 | 2.90 | 2.53 | 2.99 | 2.78 | 2.89 | 2.93 | 3.01 |
| Inspectors, class B..... | 2.56 | 2.73 | 2.74 | 2.77 | 2.17 | 2.44 | 2.48 | 2.43 | 2.43 | 2.43 |
| Inspectors, class C..... | 2.21 | 2.64 | 2.40 | 2.49 | 2.13 | 2.13 | 2.26 | 2.26 | 2.26 | 2.26 |
| Janitors, porters, and cleaners..... | 2.00 | 2.06 | 2.34 | 2.16 | 1.96 | 1.91 | 1.92 | 1.97 | 2.33 | 2.33 |
| Laborers, material handling..... | 2.02 | 2.23 | 2.53 | 2.32 | 2.10 | 2.09 | 2.16 | 2.16 | 2.46 | 2.46 |
| Machine-tool operators, production, class A..... | 2.59 | 2.85 | 3.19 | 2.96 | 2.65 | 3.17 | 2.98 | 2.81 | 2.91 | 3.13 |
| Machine-tool operators, production, class B..... | 2.57 | 2.59 | 2.73 | 2.70 | 2.43 | 2.65 | 2.41 | 2.40 | 2.61 | 2.72 |
| Machine-tool operators, production, class C..... | 2.18 | 2.27 | 2.39 | 2.44 | 2.05 | 2.10 | 2.07 | 2.13 | 2.42 | 2.42 |
| Machine-tool operators, toolroom..... | 3.09 | 2.89 | 3.38 | 2.99 | 2.76 | 3.20 | 2.76 | 3.02 | 3.02 | 3.14 |
| Machinists, production..... | 3.00 | 3.00 | 3.00 | 3.00 | 2.65 | 3.04 | 2.90 | 2.90 | 2.92 | 3.07 |
| Tool and die makers (jobbing)..... | 3.50 | 3.08 | 3.68 | 3.33 | 3.17 | 3.17 | 3.14 | 3.14 | 3.38 | 3.38 |
| Tool and die makers (other than jobbing)..... | 3.26 | 3.15 | 3.39 | 3.22 | 2.95 | 3.37 | 2.88 | 2.81 | 2.90 | 3.05 |
| Welders, hand, class A..... | 2.78 | 2.72 | 2.98 | 2.80 | 2.59 | 2.67 | 2.61 | 2.61 | 2.61 | 2.61 |
| Welders, hand, class B..... | 2.45 | 2.46 | 2.73 | 2.62 | 2.50 | 2.30 | 2.45 | 2.45 | 2.45 | 2.45 |

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Standard metropolitan statistical areas except: Chicago (Cook County); Hartford (Hartford metropolitan area and Berlin, Bristol, New Britain, Plainville, Plymouth, and Southington, Conn.); Newark and Jersey City (Essex, Hudson, Morris, and Union Counties); New York City (the 5

boroughs); Philadelphia (Philadelphia and Delaware Counties, Pa., and Camden County, N.J.); and Worcester (Worcester metropolitan area, except Northbridge).

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

above \$2.75 an hour.³ Area averages for men in the intermediate group of machine-tool operators (class B) ranged from \$2 to \$2.73; the range for those who performed more routine, repetitive operations (class C) was from \$1.67 to \$2.51.

Janitors and cleaners, the lowest paid of the men's jobs studied in nearly all areas, averaged from \$1.47 an hour in Dallas to \$2.34 in Detroit. Area average earnings for material handling

laborers were generally from 10 to 20 cents higher. Janitors and cleaners averaged less than \$1.75 an hour only in Dallas and Baltimore.

In Cleveland, a center of manufacture of metal cutting types of machine tools, occupational average earnings in this branch of the industry were generally higher than in the machinery industries as a whole. In Chicago and Detroit, the two largest machinery producing areas, pay levels for most of the jobs that could be compared were higher in shops producing special dies and tools, die sets, and jigs and fixtures than in plants manufacturing machine-tool accessories and measuring devices.

³ BLS Bull. 1309 presents separate data for the various types of machine-tool operators, such as automatic-lathe operators and milling-machine operators. Data were also tabulated for the machine-tool industry in Cleveland and Worcester, for the special dies and tools industry in Cleveland, and for special dies and tools and machine-tool accessories industries in Boston, Chicago, Cleveland, Hartford, Los Angeles-Long Beach, Milwaukee, Newark and Jersey City, and New York City. Separate information is also available for time and incentive workers in a few jobs in 12 areas and for women workers in some of the more routine occupations in 11 areas.

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Wage Chronology: Chicago Newspaper Publishers' Association

Supplement No. 2—1954-61

EDITOR'S NOTE.—Wage Chronology No. 16: Chicago Printing, *summarized changes in wage rates and related wage practices negotiated by both the Franklin Association of Chicago and the Chicago Newspaper Publishers' Association with the International Typographical Union (ITU) and the International Printing Pressmen and Assistants' Union of North America (IPPA) between 1939 and 1953. For easier use, the chronology is now being divided into two parts—one for each association.*

This following article summarizes the 1954-61 negotiations of the Chicago Newspaper Publishers' Association with the ITU and IPPA.¹ The 1954-61 negotiations between the Franklin Association of Chicago and the two unions will also be covered in a supplement and published in the Monthly Labor Review.

DURING the 1954-57 period, both the International Printing Pressmen and Assistants' Union of North America (IPPA) and the International Typographical Union (ITU) negotiated increases totaling \$12.50 with the Chicago Newspaper Publishers' Association. These increases, effective for ITU members on January 15 of each year and for pressmen on April 3 of each year (except 1954 when it was May 1), were: \$3.75 in 1954, \$2.25 in 1955, \$3.75 in 1956, and \$2.75 in 1957.

The 1956 pressmen's agreement also provided that all or part of the 1957 increase could be used to establish a pension fund if the parties could agree on the details of a plan.² A similar arrangement for a health and welfare fund was also negotiated in the 1956 compositors' agreement. Since the parties were unable to agree, the wage increases went into effect as scheduled. Both unions also negotiated changes in a variety of other wage practices.

On June 26, 1958, the association and the ITU signed a 2-year agreement that included three

general wage raises, with \$4 a week retroactive to January 15, \$1 retroactive to June 8, and \$2.75 effective January 1, 1959. The agreement also provided that up to \$1 a week (20 cents a shift) of the 1959 increase would be used to provide hospital, medical, and surgical benefits, subject to the parties' approval by November 1, 1958.

The 1958 agreement between the association and the IPPA, signed on July 30, was for 2 years. In addition to a \$3.75 a week general wage advance, the parties agreed to 4 paid holidays, bringing the total to 6; the establishment of an occupational injury benefit plan, effective August 1, 1958; and an improvement of the callback provision. Provision was again made for a pension plan, with company contributions of \$3.75 a week (75 cents a shift per employee) to begin on February 1, 1959. The union was given the option of selecting, on or before January 1, 1959, the pension plan of its international union or a plan to be established for the local union. On January 13, 1959, the parties agreed to incorporate the \$3.75 a week into wage rates, effective February 1, 1959, instead of establishing a pension plan.

The current contract between the association and the ITU, signed September 27, 1960, provided wage increases of \$3.25 a week retroactive to January 15, 1960, and \$1 more a year later; 4 weeks' paid vacation for employees with 20 or more years of service; and an increase in the employer contribution to the Hospital and Medical-Surgical Trust Fund to 25 cents per worker per shift (\$1.25 per week) effective January 15, 1960, 45 cents effective September 25, 1960, and 75 cents effective January 1, 1961. In addition, hospital, medical, and surgical benefits were made available to dependents starting May 1, 1961.

The most recent contract between the association and the IPPA, signed October 26, 1960, provided four wage increases totaling \$8 a week—\$4.50 a week retroactive to April 3, 1960, 50 cents starting September 25, 1960; \$2.50 beginning April 3, 1961; and 50 cents on April 30, 1961.

¹ For data covering 1939-53, see *Monthly Labor Review*, July 1951 (pp. 49-56) and November 1953 (pp. 1203-1206), or a forthcoming Bureau report in which data for the entire period 1939-61 will be presented.

² Both the compositors' and the pressmen's international unions have pension plans, funded solely by their memberships. These plans have been in effect for more than 30 years.

In lieu of the wage increase that could have become effective April 30, 1961, the union elected in the spring of 1961 to establish a pension plan, with the employers contributing 10 cents for each straight-time shift worked. In addition, a fourth

week of paid vacation was provided for employees with 20 or more years of service.

The ITU contract is to remain in effect until January 15, 1962, while the IPPA agreement is scheduled to run until April 3, 1962.

A—General Wage Changes

| Effective date | Increases in hourly rates (cents) | Applications, exceptions, and other related matters |
|--|--|---|
| | <i>Compositors, hand and machine</i> | <i>Web pressmen</i> |
| Jan. 15, 1954 (ITU agreement of same date). | 10.3 ----- | In addition, agreement provided a deferred wage increase of \$2.25 a week, or 6.2 cents an hour, effective Jan. 15, 1955. |
| May 1, 1954 (IPPA agreement dated Apr. 3, 1954). | ----- 10.0 | In addition, agreement provided a deferred wage increase of \$2.25 a week, or 6.0 cents an hour, effective Apr. 3, 1955. |
| Jan. 15, 1955 (ITU agreement dated Jan. 15, 1954) | 6.2 ----- | Deferred wage increase. |
| Apr. 3, 1955 (IPPA agreement dated Apr. 3, 1954). | ----- 6.0 | Deferred wage increase. |
| Jan. 15, 1956 (ITU agreement of same date). | 10.3 ----- | In addition, agreement provided a deferred wage increase of \$2.75 a week effective Jan. 15, 1957. All or part of the 1957 wage increase could be used to finance a health and welfare plan. If the parties could not agree on details of a plan, the wage increase was to go into effect automatically as scheduled. |
| Apr. 3, 1956 (IPPA agreement of same date). | ----- 10.0 | In addition, agreement provided a deferred wage increase of \$2.75 a week effective Apr. 3, 1957. All or part of the 1957 wage increase could be used to finance a pension plan. If the parties could not agree on details of a plan, the wage increase was to go into effect automatically as scheduled. |
| Jan. 15, 1957 (ITU agreement dated Jan. 15, 1956). | 7.6 ----- | Deferred wage increase. Parties elected to add the increase to existing basic rates rather than establish a health and welfare fund. |
| Apr. 3, 1957 (IPPA agreement dated Apr. 3, 1956). | ----- 7.3 | Deferred wage increase. Parties elected to add the increase to existing basic rates rather than establish a pension fund. |
| Jan. 15, 1958 (ITU agreement of June 26, 1958). | 11.0 ----- | Additional wage increase of \$1 a week, or 2.8 cents an hour, effective June 8, 1958, and a deferred wage increase of \$2.75 a week, or 7.6 cents an hour, effective Jan. 1, 1959. Maximum of 20 cents a shift, or 2.8 cents an hour, of 1959 increase to be used to establish a health and welfare fund. |
| Apr. 3, 1958 (IPPA agreement of July 30, 1958). | ----- 10.0 | |
| June 8, 1958 (ITU agreement of June 26, 1958). | 2.8 ----- | |
| Jan. 1, 1959 (ITU agreement of June 26, 1958). | 4.8 ----- | Deferred wage increase. |
| Feb. 1, 1959 (IPPA letter dated Jan. 13, 1959). | ----- 10.0 | Consisted of an employer contribution of \$3.75 a week (75 cents a shift) allocated for the establishment of a pension plan in the Apr. 3, 1958, agreement but incorporated into wage rates by agreement of the parties. |

A—General Wage Changes—Continued

| Effective date | Increases in hourly rates (cents) | | Applications, exceptions, and other related matters |
|---|---|-------------------------|--|
| | <i>Compositors hand and machine</i> | <i>Web pressmen</i> | |
| Jan. 15, 1960 (ITU agreement of Sept. 27, 1960). | 9.0 | | In addition, agreement provided a deferred wage increase of \$1 a week, or 2.8 cents an hour, effective Jan. 15, 1961. |
| Apr. 3, 1960 (IPPA agreement of Oct. 26, 1960). | | 12.0 | In addition, agreement provided deferred wage increases of 50 cents a week, or 1.3 cents an hour, effective Sept. 25, 1960; \$2.50 a week, or 6.7 cents an hour, effective Apr. 3, 1961; and 50 cents a week, or 1.3 cents an hour, effective Apr. 30, 1961. Parties could elect to use Apr. 30, 1961, general wage increase to establish a pension plan. ¹ |
| Sept. 25, 1960 (IPPA agreement of Oct. 26, 1960). | | 1.3 | |
| Jan. 15, 1961 (ITU agreement of Sept. 27, 1960). | 2.8 | | Deferred wage increase. |
| Apr. 3, 1961 (IPPA agreement of Oct. 26, 1960). | | 6.7 | Deferred wage increase. |

¹ On April 2, 1961, the union voted to use the 1.3-cents-an-hour increase (50 cents a week) to establish a pension plan.

B—Hourly and Weekly Rates for Compositors and Pressmen, 1954–61

| Effective date | Compositors, hand and machine | | | | | | | | Web pressmen | | | | | |
|----------------|-------------------------------|----------|------------------------------|--------------------|-------------------|----------|--------------------|----------|-----------------|----------|------------------------------|-------------------|----------|--------|
| | Day-shift rates | | Premium pay for night shifts | | Night-shift rates | | | | Day-shift rates | | Premium pay for night-work * | Night-shift rates | | |
| | | | First night shift | Second night shift | First night shift | | Second night shift | | | | | | | |
| | | | | | Hourly | Weekly | Hourly | Weekly | | | | | | Hourly |
| 1954: Jan. 15 | \$3.166 | \$114.75 | \$0.152 | \$0.843 | \$3.317 | \$120.25 | \$4.008 | \$120.25 | \$2.980 | \$111.75 | \$0.370 | \$3.350 | \$117.25 | |
| 1955: May 1 | | | | | | | | | | | | | | |
| Jan. 15 | 3.228 | 117.00 | .152 | .856 | 3.379 | 122.50 | 4.083 | 122.50 | 3.040 | 114.00 | .374 | 3.414 | 119.50 | |
| 1956: Apr. 3 | | | | | | | | | | | | | | |
| Jan. 15 | 3.331 | 120.75 | .152 | .877 | 3.483 | 126.25 | 4.208 | 126.25 | 3.140 | 117.75 | .381 | 3.521 | 123.25 | |
| 1957: Apr. 3 | | | | | | | | | | | | | | |
| Jan. 15 | 3.407 | 123.50 | .152 | .893 | 3.559 | 129.00 | 4.300 | 129.00 | 3.213 | 120.50 | .387 | 3.600 | 126.00 | |
| 1958: Apr. 3 | | | | | | | | | | | | | | |
| Jan. 15 | 3.517 | 127.50 | .152 | .916 | 3.669 | 133.00 | 4.433 | 133.00 | 3.313 | 124.25 | .397 | 3.707 | 129.75 | |
| 1959: June 8 | 3.545 | 128.50 | .152 | .922 | 3.696 | 134.00 | 4.467 | 134.00 | | | | | | |
| Jan. 1 | 3.621 | 131.25 | .152 | .938 | 3.772 | 136.75 | 4.583 | 136.75 | 3.413 | 128.00 | .397 | 3.814 | 133.50 | |
| 1960: Feb. 1 | | | | | | | | | | | | | | |
| Jan. 15 | 3.710 | 134.50 | .152 | .956 | 3.862 | 140.00 | 4.670 | 140.00 | 3.533 | 132.50 | .410 | 3.943 | 138.00 | |
| 1961: Apr. 3 | | | | | | | | | 3.545 | 133.00 | .411 | 3.957 | 138.50 | |
| Sept. 25 | | | | | | | | | | | | | | |
| Jan. 15 | 3.738 | 135.50 | .152 | .962 | 3.890 | 141.00 | 4.700 | 141.00 | 3.613 | 135.50 | .416 | 4.029 | 141.00 | |
| Apr. 3 | | | | | | | | | | | | | | |

¹ Based on standard workweek of 36.25 hours' net working time, exclusive of lunch periods.

² Based on standard workweek of 30 hours' net working time, exclusive of lunch periods.

³ Based on standard workweek of 37.5 hours' net working time, exclusive of lunch periods.

⁴ Exclusive of operators of color and gravure presses, who received extra nightwork premium pay.

⁵ Based on standard workweek of 35 hours' (only 1 night shift worked) net working time, exclusive of lunch periods.

C—Related Wage Practices

| Effective date | Provision | Applications, exceptions, and other related matters |
|--|--|--|
| <i>Overtime Pay—Daily</i> | | |
| Jan. 15, 1956 (ITU agreement of same date). Apr. 3, 1956 (IPPA agreement of same date). | ----- | Changed to: <i>Pressmen:</i> Night overtime rate paid day-workers after 6 p.m. <i>Compositors and pressmen:</i> Employees starting work before or after regular starting time entitled to overtime only after work-hours stipulated as day or night shift. |
| <i>Premium Pay for Work on Sunday</i> | | |
| Jan. 15, 1958 (ITU agreement of same date). | ----- | Eliminated: Full day guaranteed for Sunday work. |
| <i>Holiday Pay</i> | | |
| Jan. 15, 1954 (ITU agreement of same date). Apr. 3, 1954 (IPPA agreement of same date). Apr. 3, 1958 (IPPA agreement of same date). | No change: Number of holidays or eligibility requirements. Added: 4 holidays (total 6) for which additional day's pay was allowed when holiday fell on normal day off and employee was not required to work. | Paid holidays in effect and continued were New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas; or days legally observed as such. ¹ <i>Compositors:</i> To receive holiday pay, employee required to work day before and after holiday. Additional holidays were New Year's Day, Memorial Day, July 4th, and Christmas. |
| <i>Paid Vacations</i> | | |
| Jan. 1, 1954 (ITU agreement of same date). Jan. 15, 1958 (ITU agreement of same date). Apr. 3, 1958 (IPPA agreement of same date). Jan. 15, 1960 (ITU agreement of same date). Apr. 3, 1960 (IPPA agreement of same date). | ----- Added: One-sixteenth of day's pay for each straight-time shift worked during calendar year credited to other than regular employees. Added: 4th week for employees with 20 or more years of service. | Changed to: Vacation pay at rate employee would have received had he been scheduled to work. (Previously, employee paid rate received at time vacation began). Added: Additional day off, with pay, provided when holiday fell during scheduled vacation period. Changed to: Additional day's pay provided when holiday fell during regular employee's scheduled vacation. |
| <i>Callback Allowance</i> | | |
| Jan. 1, 1954 (ITU agreement of same date). Apr. 3, 1958 (IPPA agreement of same date). | Increased to: \$2 in addition to overtime rate for hours worked. Time and one-half (double time on holidays) when called back less than 8 hours after previous official quitting time. | Employees not to be called back for partial shifts. |

See footnote at end of table.

C—Related Wage Practices—Continued

| Effective date | Provision | Applications, exceptions, and other related matters |
|---|---|---|
| <i>Health and Welfare Benefits</i> | | |
| Aug. 1, 1958 (IPPA agreement dated Apr. 3, 1958). | <i>Occupational injury:</i> Plan established providing \$50 a week or 50 percent of employee's straight-time weekly rate, whichever was smaller, for up to 13 weeks for any occupational injury. Payments to begin on first day if employee was absent 8 or more days because of a compensable injury. | Benefits in addition to workmen's compensation and payable only if workmen's compensation benefits were awarded. |
| Apr. 1, 1959 (ITU agreement dated Jan. 15, 1958). | <p><i>Hospital-medical-surgical plan</i> established providing following benefits for eligible employees:</p> <p><i>Hospital benefits</i> (Illinois Blue Cross): Full semiprivate room and board coverage in plan hospitals for 120 days plus full cost of special diets and infant feeding; general nursing care; use of operating and delivery rooms; fracture and surgical room and nursery services; all drugs, biologicals, and sera (except human blood derivatives); materials used in dressings and casts; and—when regularly included in hospital's charges—oxygen, X-ray examination and treatment, clinical and pathological laboratory examination, anesthetics if administered by hospital employee, and use of cardiograph, metabolic, and physiotherapeutic equipment.</p> <p><i>Private accommodations</i> (room and board) reimbursed at rate of \$10 a day.</p> <p><i>Regular hospital benefits</i> provided employee admitted to hospital under agreement with another Blue Cross plan or hospital in area not served by Blue Cross; up to \$6 a day for 120 days. For emergency service in areas where Blue Cross plan was available, up to \$12 for a 1-day stay, \$16 for a 2-day stay, \$20 for a 3-day stay; and \$6 a day for 4th through 120th day; up to \$12 a visit for outpatient service.</p> <p><i>Maternity benefits:</i> Full coverage after 270 days family membership.</p> <p><i>Outpatient emergency room service:</i> Full coverage within 24 hours of an accident.</p> <p><i>Outpatient operating room service:</i> Full coverage for initial visit.</p> <p><i>Surgical benefits:</i> Up to \$375 per procedure, with limit of \$400 per 90-day period for surgery.</p> <p><i>Clinical and surgical pathology:</i> Up to \$25 for 90-day period, concurrent with surgical, obstetrical, or medical care.</p> <p><i>Anesthesia:</i> Up to \$47.50 when given by physician other than operating surgeon.</p> | <p>Employers to contribute 20 cents per straight-time shift per employee effective Jan. 1, 1959.</p> <p>Benefits not available for care in health resorts or rest homes or primarily for diagnosis or checkups, care in marine or veteran's hospital or in any hospital operated by an agency of government, or care which a member is entitled to receive under Workmen's Compensation or other laws; private nurses, blood, plasma, or other human blood derivatives, radium, radon, or other radio-active materials, special braces or appliances, ambulance service, physician's treatment of conditions caused by atomic explosions, radiation, or any type of enemy action in declared or undeclared war, refractive eye examinations, and correction by glasses or plastic operations unless necessary to correct traumatic injuries or congenital deformities evidenced in infancy, consultations, and dental expense.</p> <p>Eligibility for benefits determined quarterly for succeeding quarter, whether or not actually at work. To qualify, employee must have (1) worked 50 or more straight-time shifts during qualifying quarter, or (2) worked minimum of 30 shifts and paid 20 cents per shift for difference between shifts worked and 50, or (3) paid the full 3-month premium regardless of number of shifts worked. Coverage under plan could be continued for employees retiring after 3 or more years' of continuous service on payment of monthly premiums in advance after exhaustion of employment credits.</p> <p>Procedures not listed given individual consideration.</p> |

C—Related Wage Practices—Continued

| Effective date | Provision | Applications, exceptions, and other related matters |
|--|--|---|
| <i>Health and Welfare Benefits—Continued</i> | | |
| Apr. 1, 1959 (ITU agreement dated Jan. 15, 1958)—Continued | <p><i>In-hospital medical care benefits:</i> For treatment requiring 3 or more consecutive days in hospital—\$10 for each of first 5 visits and \$4 for each of next 65 visits (maximum 70 visits) in 90-day period.</p> <p><i>Obstetrical benefits:</i> \$65 for normal delivery.</p> <p><i>Emergency accident benefits:</i> Up to \$10 for services by a participating doctor in a plan hospital within 24 hours of an accident not otherwise covered.</p> <p><i>Diagnostic X-ray:</i> Up to \$25 per 90-day period.</p> <p><i>Radiation therapy:</i> Up to \$200 for calendar year for deep malignancy and \$50 for superficial malignancy.</p> | <p>Benefits also applicable to bed patients receiving nonoperative surgical or obstetrical care for which no indemnification was scheduled. Plan benefits provided employees treated for accidental injury or illness by nonparticipating licensed doctor.</p> <p>Additional allowances (maximum per calendar year) provided for doctor's services in conjunction with hospital care for electric shock treatment, \$80; insulin shock treatment, \$75; diagnostic skin tests—routine scratch, \$25, scratch and intradermal, \$40. Benefits available only after 9 months' membership in plan.</p> |
| Jan. 15, 1960 (ITU agreement of same date). | | Includes X-ray, radium, and other forms of radiation therapy used in the treatment of proved cases of malignancy only. |
| Sept. 25, 1960 (ITU agreement dated Jan. 15, 1960). | | Employer contribution increased to 25 cents per straight-time shift per employee. |
| Jan. 1, 1961 (ITU agreement dated Jan. 15, 1960). | | Employer contribution increased to 45 cents per straight-time shift per employee. |
| Apr. 1, 1961 (ITU agreement dated June 1959). | <p>Changed: Class of Blue Shield plan and benefits of Blue Cross plan:</p> <p><i>Hospital benefits</i> (Illinois Blue Cross): Full coverage for the following benefits in plan hospital when regularly included in its charges. Semiprivate room and board up to 120 days; special diets; general nursing care; use of operating rooms; anesthetics; anesthetics administered by hospital employee; laboratory services; surgical dressings; drugs in official drug lists; X-ray examinations; X-ray treatment; plaster casts and splints; and use of cardiograph, metabolic, and physiotherapeutic equipment.</p> <p><i>Maternity benefits:</i> Full coverage after 270 days' family membership.</p> <p><i>Outpatient emergency room service:</i> Full coverage within 24 hours of an accident.</p> <p><i>Outpatient operating room service:</i> Full coverage for initial visit.</p> | <p>Employer contribution increased to 75 cents per straight-time shift per employee.</p> <p>Benefit limitations same as under previous plan.</p> <p>To qualify, employee must have worked 50 or more straight-time shifts during qualifying quarter, and (1) for individual coverage (a) worked minimum of 30 shifts and paid 45 cents per shift for difference between shifts worked and 50 or (b) worked less than 30 shifts and paid difference between 75 cents per shift for each of the shifts under 30 worked and the premium for 3 benefit months at \$5.74 a month, or 20 shifts at 45 cents per shift, whichever was greater; or (2) for family coverage (a) worked a minimum of 30 shifts and paid 75 cents per shift for difference between shifts worked and 50, or (b) worked less than 30 shifts and paid the premium for 3 benefit months at \$19.78 per month² less 75 cents per shift for each of the shifts under 30 worked. Coverage under plan could be continued for employees retiring after 3 or more years' of continuous service on payment of monthly premiums in advance after exhaustion of employment credits.</p> |

See footnote at end of table.

C—Related Wage Practices—Continued

| Effective date | Provision | Applications, exceptions, and other related matters |
|---|---|---|
| <i>Health and Welfare Benefits—Continued</i> | | |
| Apr. 1, 1961 (ITU agreement dated June 1959)—Continued | <p><i>Surgical benefits:</i> Up to \$200 per procedure, with limit of \$200 per 90-day period for surgery.</p> <p><i>Clinical and surgical pathology:</i> Up to \$15 per 90-day period, concurrent with surgical, obstetrical, or medical care.</p> <p><i>Anesthesia:</i> Up to \$35 when given by physician other than operating surgeon.</p> <p><i>In-hospital medical care benefits:</i> For treatment requiring 3 or more consecutive days in hospital—\$5 for each of first 5 visits and \$3 for each of next 65 visits (maximum 70 visits) in 90-day period.</p> <p><i>Obstetrical benefits:</i> \$60 for normal delivery.</p> <p><i>Emergency accident benefits:</i> Up to \$5 for services by a participating doctor in a plan hospital within 24 hours of an accident not otherwise covered.</p> <p><i>Diagnostic X-ray:</i> Up to \$15 per 90-day period.</p> <p><i>Radiation therapy:</i> Up to \$150 for each calendar year for deep malignancy and \$50 for superficial malignancy.</p> <p>Added: Dependent's coverage identical to employee benefits.</p> | <p>Procedures not listed given individual consideration.</p> <p>Additional allowances (maximum per calendar year) provided for doctor's services in conjunction with hospital care for electric shock treatment, \$50; insulin shock treatment, \$50; diagnostic skin tests—routine scratch, \$15, and special scratch, \$25.</p> <p>Includes X-ray, radium, and other forms of radiation therapy used in the treatment of proved cases of malignancy only.</p> |
| May 1, 1961 (ITU agreement dated Jan. 15, 1960). | | |
| <i>Pension Plan</i> | | |
| Apr. 30, 1961 (IPPA letter of notification received Apr. 11, 1961). | Employers to contribute 50 cents a week per employee to establish pension fund. Details not available. | |

¹ The contract provisions summarized here were negotiated and incorporated in earlier agreements but were not shown in the basic report or Supplement No. 1. The inclusion of these provisions under the dates shown does not, therefore, indicate a change in existing practices.

² Dependent's coverage for the month of April 1961 only was \$14.04.

Technical Note

Relative Importance of CPI Components

INFORMATION on the weights used in calculating the Consumer Price Index is essential for evaluating the index itself and for constructing special-purpose consumer price indexes. Consequently, each year the Bureau of Labor Statistics publishes the relative importance of the 300-odd items priced for the CPI for a recent period—usually December of the previous year. In 1960 and 1961, these were published in the *Statistical Supplement to the Monthly Labor Review*. This note provides supplementary information on the derivation of the relative importance data, their uses, and their limitations. It also demonstrates a method of deriving comparable relative importance data for other dates or for special combinations of items and gives the relative importance of selected components at significant index dates. The calculation technique is given so that users may approximate the relative importance in the U.S. index between publication dates and—more importantly—in city indexes, for which these data are published only when there is a comprehensive revision of the index weights.

Definition of Relative Importance

The basic value weights used in combining price changes of individual goods and services in the Consumer Price Index are derived from BLS surveys of annual expenditures by urban wage-earner and clerical-worker families for various goods and services. Average consumer expenditures in 1950, with adjustments for price changes to 1952, provided the basic weights currently used in the index. These weights were introduced into the index during its last comprehensive revision in December 1952. They will be superseded by data from surveys of 1960-61 consumer expenditures when the index is revised in January 1964.

Between major revisions, the average quantities and qualities of the various goods and services represented by the basic value weights are held constant,¹ but the current value weights, and consequently the relative importance of the items in the index, change as prices change. For each item, the current value weight is the product of its basic expenditure weight and the relative of the change in its price over the intervening period; its relative importance is its current weight divided by the sum of the weights for all items in the index. For example, assume an index made up of only housing and food, with base expenditures of \$60 and \$40 and relative importance of 60 and 40 percent, respectively. If the price of the same kind of housing doubled while prices for identical food items advanced 50 percent, the current value weights would become \$120 and \$60 and their relative importance 67 and 33 percent, respectively ($\$120 \div \180 and $\$60 \div \180). The relative importance of items in the index, therefore, shows how families would be spending their money *if they continued to buy the same kinds and quantities of goods and services that they purchased in the period on which the index value weights are based*. However, as prices, family incomes, or the available kinds of goods and services change, families change their spending patterns and new surveys of expenditures must be made to revise the index weights.

Calculation of Relative Importance

Therefore, the relative importance of various items for a particular date may not indicate the precise pattern of actual family spending at that time; indeed, it may vary considerably from the pattern if factors other than price influence consumer spending sharply. Nevertheless, these data are useful in analyzing the movement of the index and in approximating the effect of price changes on expenditure patterns. When prices

¹For a discussion of the techniques used to eliminate price changes which are due to changes in quality, see the article on pp. 1175-1185 of this issue.

are changing rapidly and at divergent rates, users may wish to calculate strictly current estimates of relative importance. An occasional user may wish to calculate the relative importance of major groups in a city index, for which the Bureau has published only the relative importance as of the "link" month in the 1952 revision.²

Table 1 illustrates a method by which any user may calculate the relative importance of groups in the national index employing only published data. As a comparison of columns 4 and 5 demonstrates, this procedure approximates the official figures very closely.

To compute the relative importance for December 1960, for example, the relative importance of index value weights for December 1952 (col. 1) for each major group is multiplied by the relative change in price for that group from December 1952 to December 1960, that is, the December 1960 price level expressed as a percent of the December 1952 levels (col. 2). The products for the groups (col. 3) are then totaled. The product for each group is then divided by the sum (col. 4) to get the group's relative importance in index value weights for December 1960. The sum of the products as calculated in column 3 may not always yield the same relative importance as those published because various weight adjustments within groups may have been introduced in the meantime and/or because of minor changes in calculating procedures.

Following this procedure, the relative importance of index value weights can be estimated for any period. Thus, the published relative importance for December 1960 may be used as the basis for calculating relative value weights for any month after December 1952.

Calculation of Special Indexes

Sometimes the necessity arises for an index that excludes one or more components of the CPI as published or one that combines selected subgroups or items. In such instances, relative importance figures can be used as weights to combine relative changes in prices of the selected components.

The method to be followed is illustrated in table 2, which shows how to estimate the percent change from January 1948 to June 1961 in the all-items index with housing excluded. The procedure

TABLE 1. CALCULATION OF RELATIVE IMPORTANCE OF MAJOR GROUPS IN THE CPI, DECEMBER 1960

| Group | Relative importance, December 1952 ¹ (percent) | Relative price change December 1952=100 (December 1960=100) | Product of cols. 1 and 2 | Relative importance (percent) | |
|--------------------------------|---|---|--------------------------|---------------------------------------|----------------------------|
| | | | | December 1960 (products ÷ Σ products) | December 1960 ⁴ |
| | (1) | (2) | (3) | (4) | (5) |
| Food..... | 29.84 | 106.68 | 31.8333 | 28.47 | 28.5 |
| Housing..... | 32.18 | 113.66 | 36.5758 | 32.71 | 32.7 |
| Apparel..... | 9.42 | 108.23 | 9.9127 | 8.97 | 8.8 |
| Transportation..... | 11.33 | 113.63 | 12.8765 | 11.32 | 11.5 |
| Medical care..... | 4.78 | 132.44 | 6.3306 | 5.66 | 5.7 |
| Personal care..... | 2.12 | 118.84 | 2.5194 | 2.25 | 2.3 |
| Recreation and recreation..... | 5.32 | 113.24 | 6.0244 | 5.39 | 5.4 |
| Other goods and services..... | 5.01 | 114.49 | 5.7359 | 5.13 | 5.1 |
| All Items..... | 100.00 | 114.78 | 111.8086 | 100.00 | 100.0 |

¹ For December 1952, the relative importances originally published were estimated by somewhat different procedures than those employed in calculating the relative importance published here. These revised figures are based on the expenditure weights actually used in calculating the December 1952 indexes for items not priced in all cities in that month. They do not affect the relative importance for food, fuel, and rent.

² The relatives were calculated from the December 1952 and December 1960 indexes, as published in the *Monthly Labor Review*, by dividing the December 1960 indexes by the December 1952 indexes, both on a 1947-49=100 base.

⁴ Official relative importance as calculated by the BLS (table 3).

must take into account the two intervening revisions of weights used in the official calculation of the CPI—in January 1950 and December 1952, for on each occasion the value weights were changed to reflect changes in consumer spending. To do this, the price relatives must show the change from the date to which the respective importance data refer. The necessary calculations involve five steps, as follows:

Step 1. Since relative importance data were not published for January 1948, that index is obtained by redistributing the published relative importance of index value weights for 1947-49 after omitting the housing group (cols. 1 and 2). The redistributed percentages are multiplied by the published January 1948 indexes, which are the price relatives for January 1948 on the 1947-49 base (col. 3). The sum of the products, rounded to 101.7, is the all-items-less-housing index for January 1948 (col. 4).

Step 2. The procedure described in step 1 is also used to calculate an index for January 1950. The rounded sum of the products of the January 1950 indexes multiplied by the redistributed relative importance of value weights, 99.0 (as shown in col. 6), is the January 1950 all-items-less-housing index on the 1947-49 base.

⁵ The link month for the 20 major cities for which the relative importance figures are published was the last pricing month in 1952; the pricing cycle for these cities is indicated in table D-2, p. 1293 of this issue.

Step 3. In the same manner, the average relative change in the special index is calculated for the period January 1950 to December 1952 (cols. 7 through 10, table 2), to take into account an interim adjustment in the weights.

Step 4. Because new weights were introduced in 1952 based on estimates from the expenditure survey in 1950, the procedure is again repeated (cols. 11 through 14) to obtain the relative change in all items less housing between December 1952 and June 1961.

Step 5. The final calculations to obtain the all-items-less-housing index for June 1961 on a 1947-49 base (shown in table 2) are as follows: the January 1950 index (1947-49=100) is multiplied by the December 1952 index (January 1950=100) and then by the June 1961 index (December 1952=100). Division of the difference between the indexes for June 1961 and January 1948 by the January 1948 index gives the desired percent change over this period.

In constructing any special index, the number of steps to be taken depends on the number of index weight revisions that were made between the dates involved, and on the base period required in the

calculation. Thus, in step 5, the June 1961 index had to be converted to a 1947-49 base because it was to be compared with a January 1948 index on that base. If the percentage change in some special combination of index components from January 1951 to December 1952, for example, were wanted, the special indexes needed could be calculated on a January 1951=100 price base, provided the January 1951 relative importance figures were first calculated by the procedure shown in table 1. These indexes could, of course, be compared only with other indexes that had been calculated on the same base.

Table 3 presents a list of important components priced for the Consumer Price Index and their relative importance in the index at all the dates necessary to compute special indexes over any period spanned by the index. The 1935-39 average (Old Series) differs from the 1935-39 average (Original Index) because the "original index" weights reflected consumer spending based upon a 1918 expenditure survey, whereas the "old series" represented consumer expenditures derived from the 1934-36 expenditure survey. These are shown for the years 1935-39 because

TABLE 2. CALCULATION OF CONSUMER PRICE INDEX FOR ALL ITEMS LESS HOUSING

| Commodity group | Relative importance (percent) | | Relative price change | Product of cols. 2 and 3 | Relative price change | Product of cols. 2 and 5 | Relative importance (percent) | | Relative price change | Product of cols. 8 and 9 | Relative importance (percent) | | Relative price change | Product of cols. 12 and 13 |
|--|-------------------------------|------------------------|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------------|---------------------------|-----------------------|--------------------------|------------------------------------|---------------------------|-----------------------|----------------------------|
| | All items | All items less housing | | | | | All items | All items less housing | | | All items | All items less housing | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| STEP 1 | | | STEP 2 | | | STEP 3 | | | STEP 4 | | | | | |
| 1947-49 | | | Jan. 1948 (1947-49=100) | | Jan. 1950 (1947-49=100) | | Jan. 1950 (interim adjustment) | Dec. 1952 (Jan. 1950=100) | | | Dec. 1952 (comprehensive revision) | June 1961 (Dec. 1952=100) | | |
| Housing..... | 29.6 | | | | | | 25.1 | | | | 32.2 | | | |
| Food..... | 42.7 | 58.4 | 103.8 | 60.62 | 97.0 | 56.65 | 33.3 | 44.5 | 117.3 | 52.50 | 29.9 | 44.1 | 106.2 | 46.83 |
| Apparel..... | 12.6 | 17.2 | 100.4 | 17.27 | 96.7 | 16.63 | 12.8 | 17.1 | 108.7 | 18.59 | 9.4 | 13.9 | 104.3 | 14.30 |
| Transportation..... | 7.1 | 9.7 | 95.8 | 9.29 | 110.2 | 10.69 | 11.4 | 15.2 | 117.0 | 17.78 | 11.3 | 16.7 | 114.6 | 19.14 |
| Medical care..... | 3.3 | 4.5 | 98.6 | 4.45 | 105.0 | 4.72 | 5.2 | 6.9 | 113.6 | 7.84 | 4.8 | 7.1 | 134.9 | 9.58 |
| Personal care..... | 2.5 | 3.4 | 100.5 | 3.42 | 99.4 | 3.38 | 2.4 | 3.2 | 113.2 | 3.62 | 2.1 | 3.1 | 119.0 | 3.99 |
| Reading and recreation..... | 2.8 | 3.8 | 98.7 | 3.75 | 104.3 | 3.96 | 5.8 | 7.7 | 103.5 | 7.97 | 5.3 | 7.8 | 114.4 | 8.92 |
| Other goods and services..... | 2.1 | 2.9 | 98.8 | 2.87 | 103.9 | 3.01 | 4.0 | 5.3 | 111.5 | 5.91 | 5.0 | 7.4 | 114.8 | 8.50 |
| All items..... | 100.0 | | | | | | 100.0 | | | | 100.0 | | | |
| All items less housing..... | | 100.0 | | 101.66 | | 99.04 | | 100.0 | | 113.91 | | 100.1 | | 111.16 |
| STEP 5 | | | | | | | | | | | | | | |
| January 1948 all-items-less-housing index=101.7 (col. 4) | | | | | | | | | | | | | | |
| June 1961 all-items-less-housing index=99.0 (col. 6) × 113.9 (col. 10) × 111.2 (col. 14)=125.4 | | | | | | | | | | | | | | |
| Percent change, January 1948 to June 1961 = $\frac{125.4-101.7}{101.7} = +23.3$ | | | | | | | | | | | | | | |

TABLE 3. RELATIVE IMPORTANCE OF MAJOR GROUPS, SUBGROUPS, AND SELECTED OTHER COMPONENTS OF THE CONSUMER PRICE INDEX AT SELECTED POINTS IN THE HISTORY OF THE INDEX¹

| Item | Revised Series | | Adjusted Series | | Old Series | | | Original Index |
|--|----------------|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | December 1960 | December 1952 ² | December 1952 | January 1950 | December 1949 | September 1946 | 1935-39 average | |
| ALL ITEMS..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| FOOD..... | 28.5 | 29.9 | 34.5 | 33.3 | 40.0 | 42.2 | 35.4 | 31.1 |
| Food at home..... | 23.6 | 25.3 | 34.5 | 33.3 | 40.0 | 42.2 | 35.4 | 31.1 |
| Cereals and bakery products..... | 3.3 | 3.1 | 4.0 | 3.9 | 5.7 | 5.6 | 5.5 | 5.8 |
| Meats, poultry, and fish..... | 6.7 | 7.7 | 11.1 | 10.6 | 12.7 | 12.7 | 10.9 | 9.3 |
| Dairy products..... | 4.0 | 4.2 | 6.3 | 6.1 | 7.2 | 8.7 | 6.8 | 5.9 |
| Fruits and vegetables..... | 4.4 | 4.5 | 7.2 | 7.0 | 8.4 | 8.9 | 7.7 | 5.1 |
| Fresh fruits..... | 1.5 | 1.4 | 1.5 | 1.5 | 2.4 | 3.2 | 2.4 | 1.5 |
| Fresh vegetables..... | 1.4 | 1.5 | 3.4 | 3.2 | 4.3 | 3.8 | 3.4 | 2.9 |
| Other foods at home..... | 5.2 | 5.8 | 5.9 | 5.7 | 6.0 | 6.3 | 5.4 | 5.0 |
| Food away from home: Restaurant meals..... | 4.9 | 4.6 | (³) | (³) | (³) | (³) | (³) | (³) |
| HOUSING..... | 32.7 | 32.2 | 25.7 | 25.9 | 25.0 | 27.0 | 33.7 | 33.2 |
| Shelter..... | 18.4 | 17.5 | 11.5 | 11.6 | 13.1 | 14.0 | 18.8 | 16.0 |
| Rent..... | 6.2 | 5.5 | 11.5 | 11.6 | 13.1 | 14.0 | 18.8 | 16.0 |
| Home purchase and upkeep..... | 12.2 | 12.0 | (³) | (³) | (³) | (³) | (³) | (³) |
| Gas and electricity..... | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 2.0 | 3.3 | 2.9 |
| Solid and petroleum fuels..... | 1.2 | 1.3 | 1.3 | 1.4 | 2.8 | 2.6 | 2.6 | 3.4 |
| Housefurnishings..... | 5.5 | 6.5 | 5.9 | 6.0 | 4.3 | 4.4 | 4.2 | 4.7 |
| Textile housefurnishings..... | .7 | .8 | 1.0 | .9 | .5 | .6 | .5 | .5 |
| Floor coverings..... | .5 | .5 | .4 | .4 | .4 | .3 | .4 | .8 |
| Furniture and bedding..... | 1.6 | 1.8 | 1.6 | 1.6 | 1.6 | 1.7 | 1.4 | 1.5 |
| Appliances..... | 1.8 | 2.5 | 2.3 | 2.2 | 1.4 | 1.4 | 1.6 | 1.8 |
| Housewares..... | .9 | .5 | .4 | .4 | .2 | .2 | .1 | .1 |
| Household operation..... | 5.5 | 5.0 | 5.1 | 5.1 | 3.9 | 4.0 | 4.8 | 6.2 |
| APPAREL..... | 8.8 | 9.4 | 11.3 | 11.7 | 11.4 | 12.2 | 10.6 | 13.8 |
| Men's and boys' apparel..... | 2.8 | 3.0 | 3.4 | 3.7 | 3.5 | 4.7 | 3.9 | 4.7 |
| Men's apparel..... | 2.4 | 2.5 | 3.0 | 3.2 | 3.1 | 4.7 | 3.9 | 2.8 |
| Women's and girls' apparel..... | .4 | .5 | .5 | .5 | .4 | (³) | (³) | 1.9 |
| Women's apparel..... | 3.7 | 4.2 | 5.2 | 5.3 | 3.4 | 4.9 | 4.3 | 5.3 |
| Girls' apparel..... | 3.1 | 3.5 | 4.7 | 4.9 | 3.0 | 4.8 | 4.2 | 4.2 |
| Footwear..... | .6 | .7 | .4 | .4 | .1 | .1 | .1 | 1.1 |
| Shoes..... | 1.6 | 1.4 | 2.2 | 2.2 | 2.3 | 2.4 | 2.2 | 3.4 |
| Shoe repairs..... | 1.4 | 1.3 | 1.8 | 1.8 | 2.0 | 2.1 | 1.9 | 2.9 |
| Other apparel..... | .2 | .1 | .4 | .4 | .3 | .3 | .3 | .5 |
| TRANSPORTATION..... | .7 | .8 | .4 | .5 | .2 | .2 | .2 | .4 |
| Private..... | 11.5 | 11.3 | 11.4 | 11.4 | 7.3 | 7.1 | 8.1 | 4.8 |
| Automobiles, new..... | 9.9 | 10.1 | 7.3 | 7.9 | 4.8 | 5.0 | 5.2 | (³) |
| Automobiles, used..... | 2.9 | 2.8 | 3.4 | 3.7 | 2.5 | 2.4 | 2.2 | (³) |
| Public..... | 1.5 | 2.0 | (³) | (³) | (³) | (³) | (³) | (³) |
| Transit fares..... | 1.6 | 1.2 | 4.1 | 3.5 | 2.5 | 2.1 | 2.9 | 4.8 |
| MEDICAL CARE..... | 1.3 | .9 | 3.5 | 2.8 | 2.4 | 2.0 | 2.8 | 4.8 |
| Medical care services..... | 5.7 | 4.8 | 5.2 | 5.2 | 3.2 | 3.4 | 4.1 | 8.7 |
| Prescriptions and drugs..... | 4.9 | 4.0 | 4.4 | 4.4 | 2.8 | 3.0 | 3.3 | 7.4 |
| PERSONAL CARE..... | .8 | .8 | .8 | .8 | .4 | .4 | .8 | 1.3 |
| Personal care services..... | 2.3 | 2.1 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 1.7 |
| Toilet goods..... | 1.1 | .9 | 1.2 | 1.2 | 1.4 | 1.5 | 1.3 | 1.3 |
| READING AND RECREATION..... | 1.2 | 1.2 | 1.2 | 1.2 | 1.0 | 1.0 | 1.2 | .4 |
| OTHER GOODS AND SERVICES..... | 5.4 | 5.3 | 5.4 | 5.8 | 3.3 | 3.6 | 3.2 | 4.4 |
| Tobacco products..... | 5.1 | 5.0 | 4.1 | 4.0 | 2.1 | 2.1 | 2.4 | 2.3 |
| Alcoholic beverages..... | 2.1 | 1.9 | 2.3 | 2.2 | 2.1 | 2.1 | 2.4 | 2.3 |
| Miscellaneous..... | 2.3 | 2.8 | 1.8 | 1.8 | (³) | (³) | (³) | (³) |
| | .8 | .8 | (³) | (³) | (³) | (³) | (³) | (³) |

¹ In order to make the series more comparable, minor adjustments, particularly in housing, were made. Therefore the relative importance shown here will not agree in every instance with relative importance figures shown in other publications of the Bureau.

² See table 1, footnote 1.

³ Introduced into index in December 1952.

⁴ Not available.

⁵ Allocated to public transportation.

⁶ Introduced into index with Adjusted Series.

⁷ Relative importance not computed for miscellaneous items prior to December 1952.

that was for many years the base period on which the index was published. In January 1950 (Adjusted Series), an "interim adjustment" was made in the index to correct an accumulated bias in the rent figures and to take account of changes in population and family spending patterns, pending completion of a comprehensive revision then in progress. In December 1952 (Revised Series), a comprehensive revision of the index introduced

new weights based on estimates of family expenditures in 1952, derived from the Survey of Consumer Expenditures in 1950, with adjustments for intervening changes in prices and family income. As in 1935-39 (Old Series), the December 1952 (Revised Series) relative importance figures reflect actual family patterns of purchases.

—CHESTER V. MCKENZIE
Division of Prices and Cost of Living

Significant Decisions in Labor Cases*

Labor Relations

Investigation of Union Records Under the LMRDA. A Federal court of appeals held¹ that section 601 of the Labor-Management Reporting and Disclosure Act, which permits the Secretary of Labor to subpoena union records, does not require him first to establish a "reasonable basis" for the investigation. The court also upheld the constitutionality of the act's requirement, in section 201, that unions file reports on their organization and finances with the Secretary.

This case arose when the Secretary served subpoenas on officers of the union in connection with an investigation, under section 601,² to determine "whether any person has violated any provision of the act." The subpoenas required production of records from which the organizational reports and the financial reports filed with the Secretary could be verified, explained, or clarified and checked for accuracy and completeness. When the officers challenged his right to make the investigation and refused to produce the records, the Secretary petitioned a district court for enforcement of the subpoenas. His request was denied on the grounds that he had failed to show "a reasonable foundation" for the investigation and that the subpoenas were too broad.

In finding that the district court erred in requiring a reasonable foundation for an investigation, the appellate court noted that the legislative history of the LMRDA made it clear that the Congress had rejected a requirement that the Secretary investigate only when he had "probable cause" to believe that the act had been violated. With such a requirement, the court said, each investigation would likely be met by a lawsuit, so that even if he proved a probable cause the investigation could be delayed for months or years by litigation. In any case, the appellate court concluded, the lower court should not "impose a condition, which Congress rejected, on the

exercise of the right of the Secretary to investigate."

In addition, the court concluded that requiring the Secretary to establish a probable violation of the act, as a condition precedent to making an investigation, would effectively strip him of his power to investigate and prevent him from determining whether the act was being violated or was about to be violated. It would render the enforcement provisions of the act virtually nugatory. Even conceding that the disclosure sought must not be unreasonable or oppressive, all the statute requires of the Secretary is that he "believe it necessary" to investigate in order to determine whether there is actual or imminent violation. The court felt that the *Oklahoma Press Publishing Co. v. Walling* was dispositive of this issue.³ In that case, the Supreme Court had ruled that the Administrator of the Wage and Hour Division of the Department of Labor, in "searching out violation" of the Fair Labor Standards Act, must "not act arbitrarily or in excess of his statutory authority, but this does not mean that his inquiry must be limited . . . by forecasts of the probable result of the investigation."⁴ The court rejected the argument that since the *Oklahoma Press* case involved a corporation, a different rule should apply to labor

*Prepared in the U.S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

¹ *Goldberg v. Truck Drivers Local 299, International Brotherhood of Teamsters* (C.A. 6, Aug. 16, 1961).

² Section 601 empowers the Secretary to make an investigation in the following language: "(a) The Secretary shall have power when he believes it necessary in order to determine whether any person has violated or is about to violate any provision of this act (except title I . . .) to make an investigation and in connection therewith he may enter such places and inspect such records and accounts and question such persons as he may deem necessary to enable him to determine the facts relative thereto. The Secretary may report to interested persons or officials concerning the facts required to be shown in any report required by this act and concerning the reasons for failure or refusal to file such a report or any other matter which he deems to be appropriate as a result of such an investigation. (b) For the purpose of any investigation provided for in this act, the provisions of sections 9 and 10 (relating to the attendance of witnesses and the production of books, papers, and documents) of the Federal Trade Commission Act of September 16, 1914, as amended . . . are hereby made applicable to the jurisdiction, powers, and duties of the Secretary or any officers designated by him." 73 Stat. 519.

³ 327 U.S. 186 (1946).

⁴ In *United States v. Morton Salt Co.*, 338 U.S. 632 (1950), the Court followed *Oklahoma Press* and said with respect to the grounds for an investigation: "Even if one were to regard the request for information in this case as caused by nothing more than official curiosity, nevertheless law-enforcing agencies have a legitimate right to satisfy themselves that corporate behavior is consistent with the law and the public interest."

unions. The pertinent rule, the court said, had been enunciated by the Supreme Court in the *White* case:⁵ "The union and its officers acting in their official capacity lack the privilege at all times of insulating the union's books and records against reasonable demands of governmental authorities."

In rejecting the contention that the subpoenas were too broad, the appellate court in the current case found it was not unreasonable to compel production of records which the law required to be kept and from which the reports filed with the Secretary were made, since there was no other way for him to verify the reports.

The court also rejected the union's final contention that section 201 of the act was unconstitutional because the commerce clause of the Constitution did not empower Congress to regulate internal union affairs, which the union argued were a purely local matter. The court considered that it was bound by the detailed findings of the Congress,⁶ based on extensive investigation and incorporated in section 2 of the LMRDA, which state, in essence, that it is necessary to regulate union activities which are obstructing interstate commerce. Where, as here, the activities have a substantial effect on interstate commerce, the court said it is not an objection that they are local in character.⁷ Finally, it concluded that the commerce clause does not inhibit Congress in selecting the means deemed necessary for bringing about the desired conditions in the channels of interstate commerce.⁸

Refusal To Bargain. The National Labor Relations Board held⁹ that an employer who had decided to liquidate after he failed to obtain wage concessions from a union representing some of his employees was not obligated to notify the union or to recall union members when he unexpectedly resumed operations.

The employer was organized on a craft basis and had to pay higher wage rates than his competitors, who operated on a shop basis. As a result of this disadvantage, he became unable to bid competitively and his profitable business began to lose money. Faced with this situation, the employer made several proposals to the union for lower wage scales. When an impasse was reached, he decided to liquidate the business and notified the union that if he could secure enough

new capital to reorganize, he would resume operations under prevailing shop wage rates. About a week later he shut down the shop and laid off the union members. However, he resumed operations in a few days, using laborers who were members of another union, in order to meet an urgent demand from a customer for an unfinished order. He continued to operate in this manner for about a month, until the craft union began to picket.

Ruling on the union's charges that the employer had unlawfully terminated the employment of its members, the Board rejected the contention that he was obligated to notify the union regarding employment opportunities for its members. The Board noted that the union had made no specific demand for bargaining or information relative to available employment after the employer had unexpectedly reopened the plant, but decided that the absence of such demand need not be the controlling consideration in disposing of the refusal to bargain charge. The parties had already bargained to a good faith impasse, and the employer had repeatedly asserted that he could not continue to operate profitably at the rates demanded by the union. In such circumstances, the Board concluded, it would have been unreasonable to expect the employer to resume operations on the unsound economic basis which existed before the shutdown by reemploying the discharged employees. Therefore, the Board failed to see that any employment opportunities existed for the aforementioned employees concerning which the union was entitled to be informed. It concluded that in view of the union's steadfast refusal for several years to modify its wage demands and the resulting impasse in bargaining, to have required the employer to notify the union would have required him to engage in a completely futile act.

NLRB Discretion in Elections. A U.S. Court of Appeals held¹⁰ that the National Labor Relations Board did not abuse its discretion in holding that

⁵ *United States v. White*, 322 U.S. 694 (1944).

⁶ *Communist Party of the United States v. Subversive Activities Control Board*, 367 U.S. 1 (1961).

⁷ *United States v. Darby*, 312 U.S. 100 (1941); *Wickard v. Filburn*, 317 U.S. 111 (1942).

⁸ *American Power and Light Co. v. SEC*, 320 U.S. 90 (1943).

⁹ *Precrete, Inc. and Thomas Monahan*, 132 NLRB No. 91, Aug. 15, 1961.

¹⁰ *International Telephone and Telegraph Corp. v. NLRB* (C.A. 9, Aug. 28, 1961).

an employer cannot defend his failure to bargain by asserting that a certified union was not validly elected because two employees, whose votes could have changed the outcome, were not given an opportunity to vote during working hours as were the other employees.

The Board, in this case, had ordered an election upon petitions by two unions seeking to represent the same unit of employees. In submitting a list of employees eligible to vote to the NLRB representative, the employer inadvertently failed to indicate that two eligible employees worked an evening shift, whereas all of the others worked during the day. Both of these employees took time off from their daytime jobs to vote in two elections—one set aside and the other giving no majority to any choice. In the subsequent runoff election between the two unions, however, the two employees did not vote, saying that they did not want to lose a third day's work from their daytime jobs. A week after the runoff, in which the vote was 37-36, the employer and the unsuccessful union objected, citing the two employees' lack of opportunity to vote during working hours. However, the majority union was certified by the Board as the bargaining agent. The employer subsequently refused to bargain, still contending that the election was invalid. The Board again found the contention without merit and ordered the employer to bargain with the certified union.

In granting the Board's petition to enforce its order, the court stated that repeated appellate court litigation without permitting considerable discretion by the Board thwarts the national policy of promoting collective bargaining by "nurturing continuing uncertainty and argument between the parties . . ." The court asserted that although the NLRB may have been better advised to order a new election, it did not abuse its discretion in failing to do so. It is for the Board to determine whether all eligible voters had sufficiently "adequate" or "equal" opportunity to vote so that the election reflected accurately the will of the majority, as required by the National Labor Relations Act.

The court further noted that familiar rules of administrative law leave matters within the peculiar expertise or experience of the administrative bodies to the administrators. In view of the many elections conducted by the Board, the court observed that it would be vain to hold that it was better equipped than the Board to determine whether the employees had adequate opportunity to vote unless clear error was shown.

In conclusion, the court held that the conflicting Board decisions regarding the validity of elections cited by both sides were also within the discretion of the Board.

Unemployment Compensation

Vacation Pay—I. The Supreme Court of Pennsylvania approved¹¹ a formula of the Pennsylvania Bureau of Employment Security which allocated vacation pay first to the vacation period only and then within the vacation period, and it held that unemployment compensation was properly paid to claimants who were away from their jobs during a plant vacation shutdown pursuant to an agreement between the employer and the employees' union. In certifying this matter to the highest court of Pennsylvania for review, the superior court had noted that four judges of the superior court were in favor of reversing the administrative determination but they could not agree on a method of allocating the vacation pay.¹²

The case involved claims for unemployment benefits by three employees who were on vacation layoff. Under the terms of the collective bargaining agreement between the mine operators and the union the 2-week vacation period began June 28, 1958, and ended July 12, 1958. Maximum vacation pay for employees who had worked in each of the 24 semimonthly pay periods in the year immediately preceding the vacation period was \$140.00, with lesser prorated amounts for workers who worked in fewer pay periods. The employer made the agreed payments and closed down operations for vacation. A number of employees filed application for unemployment compensation for the period of the shutdown. Pursuant to section 401 of the law¹³ the Bureau of Employment Security of the Pennsylvania Department of Labor and Industry determined some claimants were eligible for benefits—partial bene-

¹¹ *Susquehanna Collieries Division of M. A. Hanna Co. v. Unemployment Compensation Board of Review*, 172 A. 2d 807 (1961).

¹² *Susquehanna Collieries Division of M. A. Hanna Co. v. Unemployment Compensation Board of Review*, 163 A. 2d 897 (1960).

¹³ Section 401 of the Pennsylvania Unemployment Compensation Law sets forth the qualifications for securing unemployment compensation. It (Continued on p. 1240)

fits in most cases—according to an allocation formula established by regulation 108,¹⁴ whereby the employee's full-time daily wage was divided into the amount of vacation pay, the resulting quotient being the number of days of the vacation period over which vacation pay was spread. For example, if an employee received \$140.00 vacation pay and had a full-time daily wage of \$20.00 the pay was allocated to 5 working days in the first week of vacation and 2 days in the second week.

The employers argued that the last sentence of the definition of unemployment clearly stated that no employee receiving vacation pay would be eligible for unemployment compensation, and since the claimants had received vacation pay for the vacation period, they were not eligible for unemployment benefits. However, the supreme court rejected this construction of the law as being too literal a reading of the provision. The court analyzed the meaning of the statute by tracing the several legislative amendments which have modified the definition of the term "unemployed" in the Pennsylvania Unemployment Compensation Law, and indicated that successive refinements "reflect a legislative effort to meet varying situations arising under the statute." The last two sentences of the definition, included by 1955 amendments, appear to have been added to overcome previous decisions by the superior court which held that a worker who was without work due to vacation shutdown pursuant to terms of a collective bargaining agreement was technically unemployed within the definition of the law, but was otherwise ineligible for benefits because his unemployment was "voluntary" and he was not available for work. The 1955 amendments provided that an employee cannot be considered ineligible for benefits simply because the plant vacation shutdown was agreed to by him or his union. The court stated that an employee's eligibility for unemployment benefits may still be questioned to determine if he is, in fact, available for work, but the determination must be based on the personal status of the worker and not on the terms of an agreement. In the matter here before the court, the workers had been determined to be available for work.

The high court examined the question of allocation of vacation pay received by the employees, considering both the problems of allocation of

vacation pay to a particular period of time and also the allocation of vacation pay within the vacation period. Although the first point was not, strictly speaking, essential to the determination of the case at hand, since vacation pay had been allocated only to vacation periods, the court discussed the related issue, based on lower court decisions allowing allotment of vacation pay to nonvacation periods when employees were without jobs due to lack of work at the plants. The court pointed out that the legislature has delegated to the Pennsylvania Department of Labor and Industry regulatory authority with respect to the relation between vacation pay and unemployment compensation subject to certain statutory standards, namely, vacation pay shall be deemed remuneration, absence from work during a vacation shutdown pursuant to an agreement does not automatically disqualify a claimant from receiving benefits, and an employee receiving vacation pay during a vacation shutdown is ineligible for unemployment compensation. The court stated that a reasonable interpretation must be given the last standard, so that receipt of a few dollars of vacation pay would not render the employee totally ineligible for unemployment compensation. The court concluded that the vacation pay must be allocated to a vacation period and must be

¹⁴ Continued.

requires, insofar as is here pertinent, that a claimant must be unemployed and available for work. Section 4(u) of the law defines the term "unemployed" as follows:

An individual shall be deemed unemployed (I) with respect to any week (I) during which he performs no services for which remuneration is paid or payable to him and (II) with respect to which no remuneration is paid or payable to him, or (II) with respect to any week of less than his full-time work if the remuneration paid or payable to him with respect to such week is less than his weekly benefit rate plus his partial benefit credit: *Provided*, That for the purposes of this subsection, vacation pay . . . whether or not legally required to be paid, shall be deemed remuneration paid or payable with respect to such period as shall be determined by rules and regulations of the department. . . .

Notwithstanding any other provisions of this act, an employee who is unemployed during a plant shutdown for vacation purposes shall not be deemed ineligible for compensation merely by reason of the fact that he or his collective bargaining agents agreed to the vacation.

No employee shall be deemed eligible for compensation during a plant shutdown for vacation who receives directly or indirectly any funds from the employer as vacation allowance.

¹⁵ The pertinent provisions of regulation 108 provide as follows:

V. A. Criteria for determining whether a payment was received with respect to a particular period; allocation of payments.—Where payments are received by an employee pursuant to an agreement which specifically makes such payments payable with respect to a particular day, week or other period, such agreement shall control. . . .

V. F. Where it has been determined that a payment has been received by the claimant with respect to the particular period of inactivity in question, the department shall determine the number of days or weeks to which such payment shall be allocated within such period by dividing the total amount of such payment by the individual's regular full-time daily or weekly wage.

allocated within the period according to the department's regulations. The court found no justification in the statute or elsewhere for allocation of vacation pay to a nonvacation period.

The court upheld the administrative determination to allow partial benefits to the claimants, since the payments were vacation pay for a vacation period and properly allocated first to the vacation period and then within the period according to regulations as authorized and directed by statute.

A dissenting opinion, based on the construction of the last sentence of the definition "unemployed," reasoned that the Legislature clearly did not intend an employee to be eligible for unemployment benefits if he received from his employer, either directly or indirectly, any vacation pay. The dissent argued that the case at hand was not one for application of the allocation formula. Rather, paragraph A, section V of regulation 108¹⁵ applied to the factual situation in the case under review, since payments were made pursuant to an agreement for a certain period, and the terms of the agreement should be controlling. Finally the dissent would hold that application of the terms of paragraph F in the instant case is contrary to the provisions and basic purpose of the unemployment compensation law.

Vacation Pay—II. Shortly after the Supreme Court of Pennsylvania handed down the *Susquehanna* opinion, the superior court applied the principle that vacation pay could not be allocated to nonvacation periods and that a claimant laid off due to lack of work was eligible for unemployment benefits even though he had received remuneration in the form of vacation pay.¹⁶

In this case, the collective bargaining agreement between the company and the employee's union provided:

Promptly after March 1 of each calendar year, each eligible employee shall be requested to specify the vacation period he desires. Vacations will, so far as practicable, be granted at times most desired by employees . . . ; but the final right to allot vacation periods and to change such allotments is exclusively reserved to the company in order to insure the orderly operation of the plants; provided that vacations shall be scheduled, in the absence of mutual

agreement between local plant management and local general committee to the contrary, between May 1 and October 1 of each calendar year as may be agreeable to the plant management and the employees.

The claimant had made no request for vacation time off, and on June 23, 1959, received 2½ weeks' vacation pay in the amount of \$354. On July 14, 1959, the claimant was laid off because of lack of work arising from a steel strike in which the employee's union did not participate. The Pennsylvania Bureau of Employment Security determined that the claimant was not eligible for unemployment compensation under section 401 and 4(u) of the unemployment compensation law for the weeks ending July 21 and July 28, 1959, because his vacation pay should be allocated to these weeks. The claimant argued that this 2-week period was not a vacation period because he was unemployed because of lack of work and was subject to recall by his employer.

The court referred to the *Susquehanna Collieries* case, which stated that for purposes of determining eligibility of a claimant, vacation pay received by the claimant must be allocated only to a vacation period. The court considered itself bound by this statement, since the issue involved was argued before, taken up, discussed, and decided by the high court. Therefore, the superior court held in the instant case that since the claimant's vacation pay had been allocated to a nonvacation period, the administrative determination must be reversed and the claimant could not be denied benefits for the weeks of July 21 and July 28, 1959, on the basis of the vacation pay which he had received in June of that year.

Wage and Hour

Exemptions Under the FLSA. The U.S. Court of Appeals for the Third Circuit held¹⁷ that a "shopping service," operated for the purpose of reporting to retail establishments on the honesty and conduct of their sales personnel, is not a "retail or service establishment" eligible to claim exemption under the 1949 amendments to section 13(a)(2) of the Fair Labor Standards Act.

This case involved the Merit Protective Service, operating under a franchise from the Merit Protective Corp. of New York but not associated with any other concern trading under the same name. The service derived 20-25 percent of its gross

¹⁵ Ibid.

¹⁶ *Franceschi v. Unemployment Compensation Board of Review* (Pa. Super. Ct., Sept. 12, 1961).

¹⁷ *Goldberg v. Sorras, d.b.a. Merit Protective Service* (C.A. 3, Sept. 1, 1961).

annual receipts from out-of-State clients. Its employees visited the stores of its clients, pretending to be customers, in order to observe conditions in each establishment, to make purchases, and to report on the behavior, honesty, and efficiency of the sales people. Their reports, after review by a supervisor, were transmitted to the Pittsburgh office, where they were checked and mailed to the clients. The employees sometimes began work when the stores opened in the morning and remained on the job until the stores closed after evening shopping hours. They were paid at flat daily rates, beginning at \$8, for 5 days a week, with time and a half for Saturday work.

Therefore, the Secretary of Labor sought, under section 17 of the Fair Labor Standards Act of 1938 as amended, to enjoin the operator of the service from violating the minimum wage, overtime compensation, and recordkeeping provisions of the act. Although the district court held that the employer and his "shoppers" were engaged in interstate commerce within the act's general coverage, it refused to grant the injunction, finding that the business met the qualifications for exemption as a retail or service establishment under section 13(a)(2) of the act as amended in 1949.¹⁸

The court of appeals reversed the lower court's judgment, upholding the Secretary's contention that the business was outside the scope of the exemption because the pre-1949 nonexempt status of comparable establishments was not changed by the 1949 amendment. The appellate court quoted extensively from the opinion of the Supreme Court in *Mitchell v. Kentucky Finance Co.*,¹⁹ which held that the 1949 amendment was not intended "to broaden the fields of business enterprise to which the exemption would apply," but only to liberalize the Wage-hour Administrator's stringent ruling that no sales of goods or services for business use were retail and therefore such sales were nonexempt. In that case, the Supreme Court had also found that the 1949 amendments invalidated only those pre-1949 rulings and interpretations by the Administrator which were inconsistent with the statute as amended.

In the pre-1949 administrative interpretation of establishments excluded from the 13(a)(2) exemption, the appellate court in the present case noted, the Administrator clearly was not attempting to

name every form of "retail or service establishment" but was giving "illustrations of categories into which this case fits." The illustrations included "establishments engaged in supplying business, financial and statistical reporting data; . . . adjustment and credit bureaus and collection agencies; credit-rating agencies; employment agencies." The court found the analogy between these and the service offered by the present employer "so striking as to be obvious."

The 1950 revision of the Administrator's Interpretive Bulletin²⁰ excluded from the retail exemption establishments providing "financial, commercial, and industrial enterprises with specialized goods or services which the general consuming public does not ordinarily have occasion to use," and cited as one example "job efficiency checking and rating" establishments. The court concluded that "shopping service" . . . is a specialized service which the general consuming public does not have occasion to use," and "falls within the category of establishments which have never been recognized as making sales of services at retail."

The court agreed with the employer that if his business were classified as retail sale or service, he would qualify for exemption under the standards found in section 13(a)(2) with particular reference to recognition in the industry, but pointed out that determination of "whether the nature of his business made it eligible under the existing concept of retail service was a prerequisite to the application of the section's standards for exemption." Therefore, the court concluded that since "the very nature of his business was outside the retail concept," the 1949 amendment was inapplicable.

¹⁸ 213. (a) The provisions of sections 206 and 207 of this title shall not apply with respect to . . . (2) any employee employed by any retail or service establishment, more than 50 per centum of which establishment's annual dollar volume of sales of goods or services is made within the State in which the establishment is located. A 'retail or service establishment' shall mean an establishment 75 per centum of whose annual dollar volume sales of goods or services (or of both) is not for resale and is recognized as retail sales or services in the particular industry; . . . 29 U.S.C.A. § 213(a)(2).

Prior to its amendment in 1949, this section stipulated: "Sec. 13. (a) The provisions of sections 6 and 7 shall not apply with respect to . . . (2) any employee engaged in any retail or service establishment the greater part of whose selling or servicing is in intrastate commerce; . . ." 82 Stat. 1060, 1067.

¹⁹ 359 U.S. 290 (1959); for summary, see *Monthly Labor Review*, June 1959 p. 672.

²⁰ 16 F.R. 7245 (Oct. 28, 1950).

Chronology of Recent Labor Events

September 1, 1961

TEAMSTER PRESIDENT JAMES R. HOFFA announced a tentative 3-year agreement covering some 100,000 employees in 11 Western States. Following ratification, it was disclosed that it included wage increases ranging from 21 to 45 cents an hour, additional raises in 1964 and 1965 to bring all California jurisdictions up to the Bay Area level (Chron. item for Aug. 18, 1961, MLR, Oct. 1961), and improvements in fringe benefits. (See also p. 1248 of this issue.)

THE U.S. Court of Appeals in Philadelphia reversed the decision of a district court and ruled that a "shopping service," engaged in checking on the conduct and honesty of sales personnel for retail establishments, was not a retail or service establishment exempt under the 1949 amendments to the Fair Labor Standards Act. The amendments did not affect the status of comparable establishments, which had been nonexempt before, the court found. The case was *Goldberg v. Sorvas, d.b.a. Merit Protective Service*. (See also pp. 1241-1242 of this issue.)

September 2

AMENDMENTS to various supplemental industry learner regulations were announced by the Administrator of the Wage and Hour and Public Contracts Divisions of the Department of Labor. Most learner rates were raised 15 cents an hour, in accordance with the increase in the Federal minimum wage (Chron. item for May 1, 1961, MLR, July 1961), and none remained below \$1. Other changes included denial of all further requests for learner certificates in the leather and sheep-lined clothing division of the apparel industry and in the shoe manufacturing industry, raising from 2 to 3 years the period during which previous experience must be counted and charged against the learning period, and tightening regulations for the hosiery and cigar industries.

Three weeks later, the Secretary of Labor announced a minimum wage determination of \$1.15 an hour for all industries covered by the Walsh-Healey Public Contracts Act where the present minimum is below that amount.

September 6

PRESIDENT JOHN F. KENNEDY wrote to the chief executives of 12 major steel producers urging them to forgo a price increase when wages were raised in October under their

current contracts with the United Steelworkers (Chron. item for Jan. 5, 1960, MLR, Mar. 1960). If they did so, he said, the 1962 negotiations on a new contract "would clearly be the turn . . . of the labor representatives to limit wage demands to a level consistent with continued price stability."

September 10

ARMOUR AND Co. and the Amalgamated Meat Cutters and Butcher Workmen and the United Packinghouse, Food and Allied Workers announced tentative agreement on 3-year contracts affecting 15,000 workers. Wage increases similar to those of the Swift & Co. settlement with the Meat Cutters (Chron. item for Aug. 31, 1961, MLR, Oct. 1961), eligibility for interplant transfer and "technological adjustment pay" for workers displaced by a shutdown after 5 years' service, guaranteed earnings during a 90-day notice of shutdown, and increases in severance pay were among the provisions. (See also pp. 1246-1247 of this issue.)

September 12

SECRETARY OF LABOR ARTHUR J. GOLDBERG announced the addition of six occupations—astronomer, Federal security specialist (investigative, intelligence, and cryptologic), health physicist, production planner, technician in engineering and physical science, and tool planner—to the List of Critical Occupations for Screening the Ready Reserve, whose members are subject to immediate mobilization in an emergency, for possible transfer to the Standby Reserve.

September 17

THE American Bakery and Confectionery Workers and the National Biscuit Co. agreed to a 2-year contract providing wage increases totaling 19.5 cents an hour for 9,000 employees. Shift premiums and fringe benefits were also improved. (See also p. 1247 of this issue.)

September 20

"HOT CARGO" clauses in labor contracts, even when there is no attempt at enforcement, were ruled illegal by the National Labor Relations Board. The Board held that Congress, in amending the Taft-Hartley Act in 1959, intended "to make 'hot cargo' contracts unlawful at inception without evidence of implementation either by request or coercion" and thus close "the so-called *Sand Door* loophole" (Chron. item for June 16, 1958, MLR, Aug. 1958). The case was *American Feed Co. and Local 210, Brotherhood of Teamsters*.

September 21

HAROLD GROSS, a former Teamster official now serving a prison sentence for failure to pay Federal income tax on

money allegedly extorted from the Neo-Gravure Printing Co. to insure labor peace (Chron. item for Jan. 15, 1960, MLR, Mar. 1960), was acquitted on the extortion charge by a Federal court jury in New York City.

September 22

PRESIDENT KENNEDY signed an amendment to the Railroad Retirement Act (P.L. 87-285) which permits early retirement on reduced benefits at age 62 for workers having 10 but less than 30 years' service, as well as at age 60 with 30 years' service, as heretofore.

September 25

IN New Jersey, the former AFL and CIO organizations—with a combined membership of about 400,000—merged after AFL-CIO President George Meany settled their prolonged dispute by directing that the president and secretary-treasurer be nominated by the AFL and two executive vice presidents by the CIO. The merger completed the unification of all AFL-CIO State bodies.

September 26

THE United Automobile Workers and the General Motors Corp. signed a 3-year contract providing continuation of the annual improvement factor and escalator clauses, benefits for short workweeks, increased supplemental

unemployment benefits, and other improvements in fringe benefits and covering 310,000 workers. Economic issues had been settled on September 6, but noneconomic and local issues led to strikes at 92 of the company's plants on September 11. (See also p. 1245 of this issue.)

OFFICIALS of the National Association of Manufacturers made public the decision of its board of directors to sever connections with the International Labor Organization, because of NAM's contention that free enterprise advocates were outnumbered in the ILO by delegates who are either Communists or have "Socialist leanings."

September 29

REVERSING a previous decision in the case of *General Motors Corp.* and *United Automobile Workers* (Chron. item for Feb. 20, 1961, MLR, Apr. 1961), the National Labor Relations Board held that the Taft-Hartley Act permitted a proposed agency shop clause at nine plants in Indiana, and found the demand a mandatory bargaining issue. The proposal, which would permit employees to retain their jobs without joining the union so long as they tendered the equivalent of union dues and initiation fees, comported with the intent of section 8(a)(3) of the act, the Board found. Since the parties had stipulated that the case was to be decided under Federal law, it did not involve any dispute about the legality of such clauses under the Indiana right-to-work law, which a State appellate court has construed to permit the agency shop.

A sworn enemy challenges and threatens democratic capitalism from the Kremlin. Three of the world's continents have sprung suddenly to productive and political power. The searchers into science have, almost overnight, given Man a mastery over Nature he may or may not be prepared for.

These are not generally thought of as developments in labor-management relations. They are fixed on the public mind in the images of foreign dictators, new members in the United Nations, orbiting rockets, and astronauts. Yet there can be little question that these scientific and political earthquakes will affect greatly, perhaps basically, the controlling forces, the rules, the procedures of the American employment relationship: wages, hours of work, seniority, "social security," collective bargaining, unemployment, perhaps even the right to strike.

—From an address by Under Secretary of Labor W. Willard Wirtz at the Labor-Management Day Luncheon of the International Trade Fair, Chicago, Ill., August 3, 1961.

Developments in Industrial Relations*

Wages and Collective Bargaining

Automobiles. The automobile industry dominated collective bargaining during September. A 17-day strike over local issues at the General Motors Corp. by the United Automobile Workers, which at first shut down almost 100 plants employing more than 250,000 workers, ended on September 27, after the parties agreed to final contract terms. The strike involved primarily noneconomic issues, including relief time. Economic terms had been agreed upon earlier.¹

General Motors also reached agreement with the International Union of Electrical Workers for about 25,000 workers in six plants; benefit improvements closely paralleled those of the UAW settlement. The principal difference between the two related to the method of financing the improved health and welfare benefits. Instead of diverting 2 cents from the first year's improvement factor raises, to finance hospital and medical care insurance, as in the UAW contract, the IUE agreed to deduct 4 cents in exchange for the company's assuming the workers' contributions for all types of insurance—group life and weekly sickness and accident benefits, as well as health insurance.

The UAW then intensified bargaining with the Ford Motor Co. The parties agreed to basic economic terms shortly before the union's strike deadline of October 3, but they were unable to resolve differences on noneconomic issues at both national and plant levels and the UAW called a companywide strike involving 120,000 workers in 26 States. It was the first such strike since the company recognized the union in 1941. The disputed issues, on which negotiation continued, included production standards, job classifications for skilled trades workers, outside contracting, additional company-paid union representatives, and the company's proposal to make wages in its steel division more competitive with the basic steel industry.

In early October, the union was still negotiating with the Chrysler Corp. under an indefinite contract extension. It also began talks with the Studebaker-Packard Corp.

Available information indicated that basic economic terms at Ford were about the same as those of the General Motors contract and included continuation of the improvement factor raises and cost-of-living escalation. Improvements in the supplemental unemployment benefits program included extension of maximum duration of benefits to 52 weeks, basing the benefit formula on 62 percent of weekly straight-time wages before taxes (instead of 65 percent of regular take-home pay), and raising maximum benefits to \$40 weekly. In contrast to the General Motors contract, the union said, the Ford agreement provides that after a worker exhausts his State unemployment compensation benefits, he would receive from the fund the maximum \$40 weekly, even though that supplementary benefit, when paid in conjunction with State benefits was less than \$40. At GM, after State benefits run out, a worker would reportedly receive a payment equal to that amount paid from the fund when it was combined with State unemployment compensation.

The White Motor Co. and the United Automobile Workers, representing about 3,000 employees at the firm's White Truck Division in Cleveland, signed a 3-year contract on September 18. According to a company official, the contract followed in general the economic terms of the GM-UAW settlement.

Farm Equipment. A 3-year contract between the United Auto Workers and Deere & Co., was announced on October 1. The settlement, affecting about 17,000 workers, included 2.5 percent improvement factor raises, cost-of-living escalation, increased pensions, company-paid hospitalization and surgical benefits, and increased supplemental unemployment benefits. Negotiators had still to work out complete details.

Meanwhile, in other agricultural implement negotiations, locals of the UAW on October 1 struck two plants of the Caterpillar Tractor Co. at Aurora and Decatur, Ill., but locals at other

*Prepared in the Division of Wages and Industrial Relations, Bureau of Labor Statistics, on the basis of available material.

¹ See *Monthly Labor Review*, October 1961, pp. 1117-1118.

company locations agreed to extend their contracts indefinitely. A total of about 17,000 workers were affected by the negotiations. At International Harvester, negotiations continued for about 32,000 employees whose agreement was to have expired September 30; the contract was also extended indefinitely subject to a 24-hour cancellation notice by either company or union.

The Allis-Chalmers Manufacturing Co. announced it had reduced the pay of about 13,000 salaried employees 5 to 25 percent, effective October 1. The company said the pay cut—applying to employees in nine States—was “only a stop gap, interim measure” to improve profit margins and would remain effective “only until extensive cost and expense reducing activities already programmed take their salutary effect.” Reductions amounted to 5 percent of base pay for employees earning less than \$10,000 a year and 10 to 25 percent for others. Contracts with the UAW covering production workers were to expire November 1.

Electrical Products. The Emerson Electric Manufacturing Co. (manufacturer of welding equipment, motors, fans, and generators) and the International Union of Electrical Workers agreed in early October to a 2-year contract that provided for no general pay increase but established stock option and profit-sharing plans. Available details indicated that the workers would share 0.5 percent of profits when they amount to 1 percent of net sales before taxes, ranging to 3.5 percent when profits amount to 12 percent or more. Employees may buy shares of common stock at 95 percent of market price on a limited basis, depending on earnings. Other contract changes provided for \$30,000 to be set aside for job inequity adjustments, a fourth week of vacation for 25-year service employees, increased hospitalization allowances, a flat \$40 weekly sickness and accident benefits (previously ranged from \$21 to \$32 a week), and three hours off on Christmas Eve and New Year's Eve. The agreement may be reopened on wages in December 1962. About 3,300 workers in the St. Louis area were affected.

Similarly, a 2-year contract agreed to by the Admiral Corp. with Local 1031 of the International Brotherhood of Electrical Workers, representing about 2,000 workers at four plants in Illinois, also provided for no immediate general

wage change. The president of the union local said that the adverse effects on the company's sales of imports of Japanese electronics parts and transfer of Government contracts from Midwestern to West Coast companies were major factors in the union's decision. A 5-percent increase, ranging from 8 to 17 cents an hour, is scheduled for October 1, 1962.

Meatpacking and Other Food Products. Settlements in the meatpacking industry, generally following the pattern of the agreement reached at the end of August by the Meat Cutters union and Swift & Co.,² were concluded at a number of other companies during September. On September 10, Armour and Co. and two unions—the United Packinghouse, Food and Allied Workers and the Amalgamated Meat Cutters and Butcher Workmen—announced tentative agreement on a 3-year contract covering 15,000 workers. The contract calls for across-the-board increases totaling 19 cents an hour: 7 cents effective immediately and 6 cents additional in September of 1962 and 1963. The initial wage increase included 1 cent in anticipation of any cost-of-living increase that might become effective in the future. The first year across-the-board advance was supplemented by an 0.5-cent increase in the increments between job classes (to 4.5 cents), resulting in additional raises ranging up to 15 cents an hour. The cost-of-living escalator clause was continued and the 5-cent allowance accrued under the previous contract was incorporated into base rates.

Fringe benefit improvements consisted primarily of increased job security for long-service workers and protection against reduced earnings because of plant or department shutdowns. Included was a 90-day advance notice of shutdowns with guaranteed earnings during this period for employees affected and “technological adjustment pay” for those subsequently laid off. The latter benefit—applying to workers with at least 5 years' seniority—would provide a total weekly payment of \$65 (including unemployment compensation and any earnings from other work) for workers who apply for a transfer to other plants. (Transfer application may be made only on an intraunion basis.) Payments will be made until transfer is effected or the worker's eligibility for transfer

² *Ibid.*, p. 1118.

expires, subject to limitations on weeks of benefits related to length of service. Maximum benefits will range from 26 weeks for employees with 5 years' service to 39 weeks for those with more than 25 years' service. The company would pay health insurance premiums for those receiving TAP.

The company's contributions to the automation fund, established under the 1959 contract, were discontinued. Of the money remaining in the fund, up to \$50,000 per contract year was to be made available for expenses of the automation fund committee and the remainder would provide allowances for retraining and for moving expenses of transferred employees, as established by the committee.

Employees who do not wish to transfer or those ineligible for transfer to another plant would get severance pay: 1 week's pay for each year of service through 10, 1½ weeks' pay for each of the 11th through 20th years of service, and 2 weeks for each year of service after 20. Previously, benefits ranged from 1 week's pay for 1 year of service up to 7½ weeks' pay for 10 years' service plus 1½ week's pay for each year over 10. Workers who apply for technological adjustment pay and then reject a proposed transfer would be paid severance pay less any technological pay and health insurance premiums the company had paid after layoff. Instead of severance pay, eligible employees who are 55 and have at least 20 years' service could elect to take 1½ times their normal pension until they reach age 62, when they would receive the normal retirement benefit. Pension benefits were to be increased on January 1, 1962, to \$2.50 a month for each year of service (formerly \$2 for each year up to 30). In addition, hospital, medical, and vacation benefits were improved and funeral leave was provided.

A week after the Armour settlement, Swift & Co. agreed to a 3-year contract with the United Packinghouse, Food and Allied Workers, covering about 12,000 workers in 17 plants. Although contract terms did not include provision for technological adjustment pay, workers laid off because of plant shutdowns were given the right to transfer from one plant to another under a master seniority agreement. Transfer application could be made to any plant covered by the contract providing an employee qualifies for a job at the plant, and moving allowances up to \$500 would be provided. Separation pay was also increased, medical cover-

age was broadened, and vacations were liberalized to provide 4 weeks' vacation after 20 instead of 25 years' service. Wage provisions of the Swift-Packinghouse contract were similar to the Swift-MCBW contract.

Other agreements were subsequently reached in September by the Packinghouse Workers with Wilson and Co., affecting about 5,000 workers, and with the Cudahy Packing Co., for about 3,500 workers. Although the wage and most of the fringe benefit improvements were about the same as those agreed to at Armour and Swift, the Wilson and Cudahy contracts contained no equivalent for technological adjustment pay. However, Wilson and the union agreed to continue to study ways of instituting a guaranteed annual wage for hourly employees and of promoting a "practical solution to the problem of stability of employment and maximum production."

The National Biscuit Co. and the American Bakery and Confectionery Workers in September agreed to a 2-year contract providing 9,000 workers in 10 cities a 10-cent-an-hour pay raise effective September 1, and 9.5 cents more a year later. The agreement also included a 2.5-cent increase in premium pay for night work (to 10 cents an hour), 4 weeks' vacation after 20 instead of 25 years' service, and an additional company payment of \$3.57 a month per worker (to a total of \$15.87) to the union's health and welfare fund.

Other Manufacturing. Members of Local 66 of the International Ladies' Garment Workers' Union, on August 31, ratified new 3-year contracts with seven employer associations for 9,000 embroidery workers in the New York City area. The settlements provided increases of \$3.50 a week for weekworkers and a 10-cent-an-hour increase for pieceworkers. It was the first general wage increase for these workers in almost 4 years. The contract provides that the employers will transfer part of their payments from the union's Supplementary Unemployment Severance Benefits Fund to its health and welfare fund in order to improve vacations and establish maternity benefits.

The E. I. du Pont de Nemours & Co. reached agreement in early September with the independent Nylon Employees Council, representing approximately 2,600 plant and clerical employees

in Martinsville, Va. The agreement provided wage increases of 5 to 8 cents an hour effective August 27 for hourly employees; comparable salary increases were effective September 1 for clerical employees.

Effective August 28, wage increases of 6 to 8 cents an hour and \$11 to \$14 a month went into effect for about 5,000 employees at du Pont's Deepwater, N.J., plant. Contract negotiations were conducted with the Chemical Workers Association (Ind.).

Members of the Leather Workers International Union on September 15 ratified 2-year contracts with the Massachusetts Leather Manufacturers Association and independent companies for about 3,000 workers in 74 North Shore (Mass.) area factories. The contracts left rates of pay unchanged for 1 year until September 1962, when a 6-cent hourly wage increase will go into effect. The settlements also called for immediate increases in life insurance (up \$500 to \$1,500), Blue Cross benefits, and sickness and accident benefits (up \$5 to \$30 a week) and for a ninth paid holiday in 1962.

A 2-year contract between the Glass Container Manufacturers Institute of America and the American Flint Glass Workers Union was announced on August 26. The agreement, affecting about 2,000 mold makers in plants across the Nation, provided for a 3-percent wage increase, averaging about 9 cents an hour, in each contract year. Pension and vacation benefits were also increased.

Trucking. Tentative agreement on contract terms for local and long distance truckers in 11 Western States was announced on September 1, by Teamster President James R. Hoffa. Under the 3-year contract, which was retroactive to July 1, first-year general wage increases amounted to 7 cents an hour for over-the-road drivers, and 15 cents (7 cents in July and 8 cents in November) for local drivers.³ Most of these workers were to get similar raises in 1962 and 1963. The cost-of-living escalator clauses were revised to provide reviews annually instead of semiannually, with the first adjustment to be made in July 1962. Other provisions called for such increases as were necessary to provide a uniform 4-week vacation after 18 years' service and a uniform \$16.50 a

month in employer contributions for health and welfare, and \$5 weekly for pensions. Pension contributions are to go up an additional \$1 in July 1963.

The New York State Employers Trucking Association and the Teamsters in late September reached agreement on a contract covering approximately 15,000 over-the-road and local cartage drivers in upstate New York. The agreement, retroactive to August 1, 1961, provides increases totaling 34 cents an hour for local cartage drivers and 50 cents for long distance drivers over its 3-year term. It also established an escalator clause, with the first review date in August 1962. Other contract changes included improved vacations and increased employer payments to the pension and health and welfare funds.

Telephones. Among the major wage agreements reached during September in the telephone industry were two settlements that provided weekly increases ranging from \$1.50 to \$3 for about 66,000 employees of the Southern Bell Telephone Co. and the New England Telephone and Telegraph Co. Both increases, negotiated under wage reopening provisions of existing 3-year contracts, followed the pattern set in May at other Bell Telephone System companies.⁴ Additional increases in both settlements resulted from reclassification of jobs and the upgrading of certain cities to higher wage zones. The Southern Bell pact, with the Communications Workers of America, affected about 54,000 workers in all departments in 9 southeastern States. According to the company, the increases averaged 5.7 cents an hour. The settlement at New England Telephone was negotiated with the International Brotherhood of Telephone Workers (Ind.) for 12,000 plant and engineering employees in Maine, Vermont, New Hampshire, Massachusetts, and Rhode Island.

Services and Construction. About 2,700 registered nurses in 21 Minneapolis-St. Paul hospitals received wage increases and other benefits in a 2-year contract based on an arbitration award

³ The settlement does not apply to about 10,000 local cartage and drayage drivers in the San Francisco Bay area, who are to receive 18-cent increases during the term of 3-year contracts negotiated in August. See *Monthly Labor Review*, October 1961, p. 1121.

⁴ See *Monthly Labor Review*, July 1961, p. 775.

announced on September 8. It called for a \$16 monthly pay increase retroactive to July 1, and for an additional \$15 monthly on June 1, 1962. The first-year increase brought the monthly starting rate to \$346 for general duty nurses and \$386 for head nurses. The award also improved holiday pay, increased by \$1 the pay for 8 hours' on call-for-duty service, and stipulated that "a suitable retirement pension plan shall be established."

The Southern California Chapter of the National Electrical Contractors Association and three locals of the International Brotherhood of Electrical Workers in August agreed to 3-year contracts for at least 8,000 electricians in Los Angeles, Orange, San Bernardino, and Riverside counties. The settlement provided journeymen with a 73-cent-an-hour wage increase over the contract period—25 cents on August 21 and four semiannual installments of 12 cents beginning July 1, 1962, and continuing through January 1, 1964. Base hourly rates for journeymen will become \$5.38 an hour by this latter date.

Escalation. With the announcement of the Consumer Price Index for August—at 128.0 (1947-49=100)—about 700,000 workers were to receive cost-of-living increases under escalator clauses. About 100,000, mostly in the aircraft-missile industry, received a 1-cent-an-hour wage increase and another 20,000 employees in aircraft and metalworking concerns got 2 cents. Escalator clauses affecting about 580,000 workers in steel and related industries could also have resulted in a 3-cent wage increase for these workers on October 1. However, their contracts provided that this increase could be offset entirely or in part by the estimated rises in insurance costs in the fourth quarter of 1962. The United Steelworkers and the United States Steel Corp. (whose projected insurance costs are the industry's standards for this purpose) on October 6 announced that one-half of the cost-of-living increase would be credited against insurance costs and that the remaining 1.5-cent increase would go into effect on October 1. Meanwhile, on that date a

deferred wage increase provided for under existing contracts went into effect. At U.S. Steel, the increase was estimated to average about 8.9 cents an hour, including the effect on incentive pay.⁵

In an exchange of letters during September, President Kennedy congratulated David J. McDonald, president of the Steelworkers, for his pledge to give "full weight and recognition" to the public interest in wage negotiations with the steel industry next spring. Mr. McDonald had written to the President after the Chief Executive had sent letters to the heads of the 12 largest steel companies urging them not to increase prices when the wage increases went into effect on October 1. Mr. McDonald concurred with the President's Council of Economic Advisers that the latest wage increase would, as he put it, "be more than offset by rising productivity" and said that the prospective reduction in unit labor costs "confirms our assertions that the settlement was noninflationary." The President said he was sure McDonald agreed with him "that the public interest requires responsible price and wage policies," and if price stability is to be maintained, forthcoming labor negotiations should result in a settlement "within the limits of advances in productivity"

Other Developments

Teamsters. The National Labor Relations Board on September 12 certified the results of a July representation election in which an insurgent group of Teamster taxicab drivers in Chicago defeated Teamster Local 777.⁶ About 5,000 taxi drivers and garage employees of the Yellow Cab and Checker Taxi companies were affected. The rebel group, known as the Democratic Union Organizing Committee, was formed in protest against the president of Local 777, Joseph P. Glimco.

In Cincinnati, the Teamsters international filed suit in a Federal district court to collect dues and initiation fees from four locals whose 4,000 members bolted from the parent organization in August.⁷ Meanwhile, the Cincinnati regional director of the NLRB ordered an election to decide whether one of the locals (representing about 1,800 milk drivers and dairy workers) would remain with the Teamsters or become affiliated with the AFL-CIO.

⁵ See Wage Chronology No. 2: United States Steel Corp., Supplement No. 8, 1958-60, *Monthly Labor Review*, October 1960, pp. 1071-1077.

⁶ See *Monthly Labor Review*, September 1961, p. 1011.

⁷ See *Monthly Labor Review*, October 1961, pp. 1123-1124.

Musicians. A West Coast union of motion picture and recording musicians, which in 1958 broke away from the American Federation of Musicians,⁸ agreed to rejoin the parent body, according to a joint statement issued on September 11. The agreement calls for the secessionist Musicians Guild of America to dissolve and for the AFM to reinstate to membership all musicians expelled for Guild activities.

Longshore. In another unity move, the International Longshoremen's Association announced on September 17 the return of five Puerto Rico dock-worker locals, which had affiliated with the Seafarers' International Union 8 years ago. The locals represent about 6,600 workers; their reaffiliation carried the endorsement of SIU President Paul Hall.

Rulings and Legislation. The National Labor Relations Board on September 29 reversed a decision handed down in February⁹ by ruling that an agency shop provision is a permissible form of union security under the Taft-Hartley Act and that the employer must bargain on a union de-

mand for such a clause. An agency shop requires nonunion employees in a bargaining unit to pay to the union a sum equivalent to the dues and fees paid by the union members in that unit. The case arose from a dispute involving the UAW and nine General Motors plants in Indiana, where a State appellate court has allowed the agency shop under the State's right-to-work law. The Board did not consider State law, because the parties had stipulated that the case was to be decided under the Federal act.

President Kennedy on September 22 signed an amendment to the Railroad Retirement Act which permits retirement on reduced annuities at age 62 for employees who have completed 10 but less than 30 years' service. Previously, early retirement was restricted to employees with 30 years' service, who could retire at age 60. Eligibility requirements for spouses and widows who have remarried were also eased. Amendments were generally similar to those approved earlier for the Social Security Act.

⁸ See *Monthly Labor Review*, May 1958, p. 541.

⁹ See *Monthly Labor Review*, May 1961, pp. 826-827.

Book Reviews and Notes

EDITOR'S NOTE.—*Listing of a publication in this section is for record and reference only and does not constitute an endorsement of point of view or advocacy of use.*

Special Reviews

Doctors, Patients, and Health Insurance: The Organization and Financing of Medical Care.

By Herman Miles Somers and Anne Ramsay Somers. Washington, The Brookings Institution, 1961. 576 pp. \$7.50.

Medical practice is a highly individualized service, yet it seems to have become too important to be left to the personal physician alone. The rapid development of medical technology and the growing demand for its lifegiving benefits have created large-scale organization and financing of medical care. The problem now is, Can the supply of this high quality individual service be expanded and reconciled to the demands of the specialized institutions which are necessary to get us that increased service in the first place?

In this big, solid book, the Somerses have tried to set this problem in its true perspective, to explore and evaluate the many partial solutions now in operation, and then to identify the unresolved issues. Their success is extraordinary. They have rationalized a sea of material—ranging from expert testimony to exposé—in a book which if it did nothing more than tell us what has been happening would be a welcome arrival. But it goes well beyond mere organization and description of the field. Its analysis of institutional arrangements—particularly the chapters dealing with insurance, Blue Cross, and Blue Shield—is as sharp as any surgeon's blade.

The book's 25 chapters are grouped into 7 parts. After a brief introductory (historical) treatment in Part One of the emergence of scientific medicine and the paradoxes created by medical progress,

the authors use a supply-demand approach for their analysis of the medical market.

Part Two starts with the supply side and shows that medical practice is inescapably becoming an organizational process. This is probably best demonstrated by the operation of a modern hospital where the longstanding conflict between the hospital as a "doctors' private workshop" and "the hospital as a community health center" is being slowly resolved.

Among the disruptive problems created by medical progress is the declining role it has forced on the individual doctor. The Somerses show that the reason for this is simple: it has become increasingly difficult, both in terms of knowledge and cost, for the individual doctor to deliver a total medical product. This fact is the major cause of the rise of specialists, combined practice, and the paramedical professions. Though these disruptive changes have led to changes in the way physicians are paid, their income and status have not suffered. These, the authors find, are, if anything, bigger and better.

An important reason why doctors enjoy high incomes is that they have become more productive, partly through changes in organization, improved technology, and especially the new drug discoveries. Most experts feel that utilization of physicians' services, however, is still not high enough. Yet by almost any standards, there simply are not enough doctors. According to the authors, the ratio of doctors to our population (now 133 per 100,000 of population) is smaller than 50 years ago, when effective demand for medical care was much smaller than it is today.

The Somerses prescribe action on all fronts, additional organizational reform, and more of everything—doctors, paramedical personnel, equipment, and money. But they are dubious that medical schools will expand soon. Given the ambivalence within the medical profession about the expanding of their profession and the fact that there is no "disposition on the part of the public or legislature to sponsor such a crusade," a declining doctor-population ratio is bound to result. The outlook is that the ratio will continue to decline and more than offset possible gains in productivity, which, in the authors' view, are likely to be much more difficult to obtain in the future than they have been in the past.

Not surprisingly, this supply-demand relationship is pushing up medical costs (Part Four), and in order to pool risks and share costs, concerned customers are busy creating what the authors call "the ubiquitous third party" in the medical relationship: employee benefit programs and private health insurance institutions.

Part Five of the book (with nine chapters) is devoted entirely to private health insurance and, in my judgment, is by far the best part of the volume. Since this part is itself the length of a small monograph, even a brief outline of its contents is beyond the scope of this review. I shall simply content myself by expressing pleasure at the analysis of such issues as the inability of Blue Cross satisfactorily to gain consumer representation in its policies and the dilemma of Blue Shield in finding a course between being a broad public service available to most of the community on a national scale with good quality controls or simply a doctors' collection agency for low-income groups.

Although medicine's third party may be ubiquitous, it is not omnipotent. Costs are continuing to rise, and in the Somerses' view, they are sooner or later going to reach a general crisis stage. In fact, they argue that health insurance costs have already done so. A survey of the various cost controls that can be applied leaves the authors pessimistic that adequate organizational changes can be made to relieve the cost crisis.

This pessimism, it strikes me, comes more from their interpretation of the medical profession's unwillingness to endorse changes in the structure and organization of medical practice and to lead the needed movement for increasing the supply of physicians than from the authors' findings on the effectiveness of health insurance. And in this respect the book is "conservative" in its policy implications. The public sector is not part of the book's defined jurisdiction, but the authors make clear that despite any expansion in the public sector which may occur, private medical care programs will, with good reason, continue to grow.

From their discussion of private health insurance, the Somerses proceed, in Part Six, to dismantle the stereotyped view of the doctor-patient relationship. In its place, they see developing a new relationship in which the doctor is more a teacher than a father and the patient a more active and responsible partner in his treatment and recovery than a passive subject. There is demon-

strated value in this approach, particularly in the management of those disabilities requiring rehabilitation, but this seems the one place in the book where the authors' optimism runs ahead of their supporting evidence.

In the concluding chapter, the authors contend that forces now in motion present seven issues critically in need of sound decision. These are how to (1) increase the supply of physicians, (2) improve the organization of physicians' services, (3) rationalize hospitals and other facilities, (4) assimilate the drug revolution into methods of organizing and financing medical care, (5) provide increasing access to medical care, (6) regulate the rise in medical care costs, and (7) develop new patterns in public-private relationships.

If the wisdom of our decisions will be helped by the quality of our knowledge, the Somerses have made a major contribution to good public policy.

—EARL F. CHEIT

Associate Professor of Business Administration
University of California (Berkeley)

Professional Manpower and Education in Communist China. By Leo A. Orleans. Washington, National Science Foundation, 1961. 260 pp. (NSF-61-3.) \$2, Superintendent of Documents, Washington.

Mr. Orleans has prepared a highly competent evaluation, concise yet comprehensive, of Communist China's efforts to train and utilize its resources of specialized manpower in support of national power and in conformity with Party dogmas. This pioneering study has asked many basic questions, marshalled a cohesive body of relevant facts from scattered sources and often contradictory statements, and arrived at general judgments of Chinese accomplishments and failures. It provides an admirable foundation for more definitive work in the future and a useful guide for the present. Its major weaknesses are stylistic and editorial.

The study comprises four parts: an analytical summary (chapter I); a survey of educational policies, student and staff statistics, curriculums, facilities, and problems (chapters II to V); an incompletely integrated review of data on the control and utilization of professional manpower in relation to China's total human resources (chapters VI to VIII); and nine appendixes which list types of educational and research institutions, outline

matriculation requirements for higher education, etc. Forty-one tables with sources and brief annotations carry the statistics used; elsewhere, footnotes provide documentation, since the fragmentary nature of the sources used would have lent little value to a formal bibliography. The book is well indexed.

The wealth of problems covered by Mr. Orleans cannot be adequately indicated in a brief review. However, the following selected observations seem valid and informative:

In China the relationship between the party and the professionals has been complicated by the background of the intellectual class. Ever since the basic reforms of the Chinese traditional educational system some 40 to 50 years prior to the Communist regime, education had been based upon Western models, while large numbers of outstanding scholars had . . . established academic and personal ties incompatible with Communist concepts. As a result . . . the State's attitude toward the intellectuals vacillated from praise to scorn, from acceptance to open attack. . . . These conditions could not have failed to produce a deterioration of morale and performance among China's professionals; . . .

Again:

In less than 10 years, the Communist regime managed to increase the enrollment in primary schools by some 60 million and in institutes of higher education by some 500 percent. To do this the Communists have had to sacrifice quality—a problem of which they are well aware but consider inevitable at this time. . . . The "great leap forward" initiated in 1958 compromised education even further. Production became the key word, and everyone from the first grade to the college student had to contribute in some way toward production. While the regular students had less and less time to spend on their studies, more and more people were absorbed into the educational mill on a part-time basis.

Later:

The general quality of the present college graduates in China [about 625,000] is usually quite low. Those who had received their training in the West prior to 1950 and the few thousand selected students who have been trained in the Soviet Union since then remain the core of the professional manpower. . . . From the practical point of view, it is more expedient at this stage of development for Chinese scientists to borrow existing knowledge from the more advanced nations and convert it to the special needs and the present level of Chinese technology.

In general, Mr. Orleans' critical attitude toward Chinese professional manpower and its utilization appears to be based on ample documentation. The same configuration of overall weakness, particularly in scientific innovation and leadership,

is revealed in another major study, *Sciences in Communist China* (American Association for the Advancement of Science, Publication No. 68, 1961). However, mining and metallurgy (pp. 687-738) represent a major exception, in which the Chinese appear, at least in their large-scale operations, to be approaching foreign levels of excellence.

Finally, the close interrelationship of Chinese and Soviet education and science deserves emphasis. Comparison with Nicholas DeWitt's *Soviet Professional Manpower* (National Science Foundation, 1955) readily discloses systematic resemblances in the goals, organizational systems, curriculums, and manning objectives of the two. Difficulties between party and intellectual, frantic drives for quantity over quality, and immense dependence upon foreign technology were almost as evident in the Soviet Union before World War II as in today's China.

Conversely, Chinese influence upon Soviet science may be identified in this year's reorganization of science and research in the U.S.S.R. as reported by DeWitt in *Science*, June 23, 1961, pp. 1981-1991. The establishment of a central, frankly military, coordination of research above the Academy of Sciences and all other civilian bodies follows in detail the Chinese reorganization of 1958 (Orleans, pp. 106-107).

In sum, Mr. Orleans' work can be heartily recommended. Further National Science Foundation studies in this field will also merit careful reading.

—D. B. SHIMKIN

Professor of Anthropology and of Geography
University of Illinois

Collective Bargaining in the Federal Civil Service: A Study of Labor-Management Relations in United States Government Employment. By Wilson R. Hart. New York, Harper & Brothers, 1961. 302 pp., bibliography. \$6.50.

On June 22, 1961, the White House announced the formation of a task force to review and advise the President on employee-management relations in the Federal service, including the definition of appropriate employee organizations, matters on which such organizations may be consulted, standards for recognition of such organizations, and the participation of employees and employee representatives in grievances and appeals. Even

as this announcement was being made, quite by chance the present volume was going through the presses and into the channels of distribution. In a word, the volume could hardly have been more timely issued. The author writes from an unusual combination of experience. He is not only deputy chief of the Civilian Personnel Branch of the Signal Corps, but he has also been very active in the American Federation of Government Employees.

One can say confidently that this may well be the most important volume on this subject written in a decade or more. Mr. Hart surveys with much acumen the Federal Government's labor-management policies in terms of proponents and opponents, the facts of history and law which bear upon the matter of Government dealings with employee organizations, the controversial issue of the "sovereign employer," what constitutes collective bargaining, and the conventional and unconventional employee-management policies in the Federal and in the State and municipal service. He then turns to asking what the unions of Government employees want, what the Federal executive can do without further legislation, what Federal employees would do with collective bargaining privileges, and ends with some prognostications of his own.

There is no doubt of where the author stands. He believes that the Federal Government's dealings with its employees are characterized by an outmoded paternalism unworthy of a democratic nation and inconsistent with the governmental protection of employees in private industry both in respect to collective bargaining and to the protection of individuals who attempt to exercise whatever rights of group action they may find in vaguely worded official pronouncements. At the same time he is equally critical, perhaps more so, of the organizations of Federal employees (both those which consider themselves "unions" and those which shy away from this characterization) for their failure to define clearly what they do want, for wanting the wrong things, for being content with the relatively comfortable lobbyists' life instead of getting down to the grubby work of organizing the rank and file, and so forth.

Along the way, Mr. Hart makes an excellent analysis of the perennially introduced Rhodes bill which purports to bring collective bargaining (in some sense) into Federal employee-management

relations, defines the limits of collective bargaining for Federal employees, shows to what a large degree Federal executives do have discretion in determining rates and conditions of employment, and in one remarkable chapter shows how far a Federal executive (Mr. Hart perhaps?) can go in bringing collective bargaining into the Federal service without treading upon even a single toe of the applicable statutes and regulations.

There is much more in this challenging book; much that is good and stimulating, plus a small portion of inconsistencies and errors. The latter count for little in a volume which deserves to be read carefully by all who are concerned with this important subject.

—HERBERT J. LAHNE

Director, Division of Research and Statistics
Bureau of Labor-Management Reports

Full Employment, Inflation, and Common Stock.
By Melvin L. Greenhut. Washington, Public Affairs Press, 1961. 87 pp., bibliography. \$3.25.

In a well-written text, the author explains in broad terms the relationship between the level of national income and employment, to help investors make better use of their liquid assets. Intended for a large audience, particularly businessmen, the text includes only a limited amount of economic jargon. One can, however, understand the conclusions in the latter part of the book without necessarily following the development of the thesis in detail.

The author believes that significant changes in the social framework in the past 25 years favor long-term ownership of common stocks. Better knowledge of our economic institutions, together with Government concern for and regulation of economic activity, minimize the possibility of serious depressions. He assumes as a strong possibility depressions of only 4-5 percent unemployment. Although stable prices would be ideal for reasons of equity and growth, those in positions of political responsibility, even those who strongly favor hard money, tend to err on the inflationary side rather than accept risks of deflation. He characterizes both parties at the present time as "spenders." Except for improper guidance by the Government, resulting in runaway inflation followed by depression, we may expect a more stable economy, with interest rates lowered in

reflection of lower risks. Gains in productivity will not go to the holders of cash but to those who invest in American industry common stocks or adequately discounted bonds.

The recent rise in price-earnings ratios of common stocks beyond the norms of earlier years suggests that the investing public has accepted the views of the author, in some instances with a speculative fervor. Some of these ratios have risen to levels that may exceed the impetus of merely the new social climate. The great number of stocks which seem to have discounted future growth for many years suggests the exercise of prudence despite the author's view that winners can be picked more easily in an inflationary environment. Although the judicious selection of common stocks promises to be more rewarding than the holding of cash, not all equity purchases will prove profitable. The consequences of short-term cycles, similar to the drop in 1960, accompanied by more than 5 percent unemployment, must be considered by investors who may not be able to take the long view.

—DAVID SCHENKER

Office of Manpower Administration
U.S. Department of Labor

Man and Leisure: A Philosophy of Recreation.

By Charles K. Brightbill. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1961. 292 pp. \$6.50.

At a time when added emphasis is being placed on shorter work hours, longer vacations, numerous holidays, 3-day weekends, and early retirements, Mr. Brightbill has presented some rather interesting ideas and approaches to the meaning of this "new leisure" and the problems involved.

According to the author, "a society that is leisure-centered rather than work-centered, that prolongs life far beyond the period of gainful employment and the time required for rearing a family, . . ." has a large and challenging problem in helping its people feel useful to the end of their days. It is this "need to be useful that makes the new leisure a *problem* as much as an *opportunity*." Too few people possess the know-how of using their new found time constructively and creatively, i.e., to enrich life rather than to escape it. Thus the author has attempted to indicate how one might obtain self-enjoyment and happiness through the recreative use of leisure.

This approach is centered around the premise that "It is people and not things that ultimately and consistently permeate our existence." Consequently, a society's culture is influenced to a considerable extent by the way its people use their free time. With this as a background, an earnest plea is made for a close and careful look at the use of leisure in our world today.

Our industrial revolution is continuing to have its effects upon the individual, and the author holds that it now seems more imperative than ever that leisure time activities be such that individuals find ways to be creative, helpful, and productive in their new found time. If our democracy can be translated to mean equal opportunities for the creative growth of all people, then it is most urgent that we fully explore leisure and the wide recreative use of it. This resource, according to the author, might well be "the last great citadel for the preservation of individual freedoms in a conforming and technologically stamped society." Changes in our ideas of what constitutes success in life and revision of many of our basic values might be warranted. The author thus spells out fairly clearly how this shift in values can be brought about in a society that has "become so enraptured with production and material successes that machines overshadow men . . ." He cautions again and again that "life comes first" and that "recreative living leads to full living" by emphasizing the importance of educating for leisure and using leisure as a blueprint for health, the development of a fuller personality, and a road to learning.

Whether or not one accepts the author's basic thesis, there can be little doubt but what the book, or any chapter of it, will stimulate thinking and add spirit to one's approach to life.

—JACK A. WILSON

Business and Defense Services Administration
U.S. Department of Commerce

Output, Input, and Productivity Measurement.

New York, National Bureau of Economic Research, Inc., 1961. x, 506 pp. (Studies in Income and Wealth, Vol. 25.) \$10, Princeton University Press, Princeton, N.J.

The increasing interest in the measurement and interpretation of productivity trends is partially related to problems of real economic growth, inflation, and national budget projections, all of

which have entered the arena of political controversy. The attempt to provide meaningful data for the analysis of such problems is the chief concern of this volume. More specifically, the chapters bring together the theoretician and statistician "to try to sharpen our concepts of output, input, and productivity."

The Income and Wealth Conference at which the volume papers were delivered was held in 1958. The publication lag of over 2 years is the most serious criticism which can be made of this volume. Particularly so since many significant statistical and theoretical advances have been made since 1958, some of which were discussed at the 1961 NBER Conference on Income Shares.

In addition to the 14 major papers, the volume contains an excellent introduction by John Kendrick and comments by 25 others, some of which are significant contributions in their own right.

The leitmotif of the volume is how to measure productivity change and the input and output components of productivity. In a number of the chapters, input, output, and productivity data are reviewed and new data presented. Several of the authors have devoted some of their space to "a priori model analyses" (Copeland), which fortunately does not unduly detract from the general excellence of the volume. There is one general conclusion that I have drawn from a reading of these chapters. In spite of the impossibility of obtaining measures corresponding exactly with the algebraic demands of index number construction, the conceptual demands of economic accounting, the strict demands of economic theory, and the practical demands of decision models, we already have and will improve the basic data and concepts needed to make reasonable productivity estimates for analysis of meaningful problems.

Siegel's opening chapter considers the algebraic aspects of index number construction and warns that these should not be ignored in productivity measurement. He has some good things to say about productivity measures in spite of "a theoretical tradition which denied them any relevance to economic structure or policy." Barnett draws some interesting distinctions between different meanings of diminishing returns and, as partially based on data in the Potter and Christy chapter, tentatively concludes that there is no economic

resource scarcity in the agriculture and mining industries.

Greenberg presents an exhaustive and painstaking compilation of the basic data sources available for measuring industry and economy-wide outputs and man-hour inputs, including price index data available for output deflation purposes.

The chapters by Berlinguette and Leacy, Alterman and Jacobs, Gilbert and Beckerman, and Phillips are all concerned with estimating industry constant-dollar net output and relating these to factor inputs in order to obtain productivity measures. The first two of these, along with the Schultze comments, contain some valuable empirical results and interesting applications. The measurement techniques are gone into in detail and are evaluated. The national accounts framework is admirably suited for such measurements, and the advantages of using the "double-deflation" procedure, when possible, are stressed. It is clear that the absence of real net output data by industry is a serious gap in our information system, which can only be filled by devoting Government research resources to this end.

Boulding introduces the chapters on input measurements by emphasizing that different concepts are required to answer different questions. Denison prefers man-hours to number of persons employed as a measure of labor input when we are concerned with measuring disutility of work, although he suggests that the reverse is true for measuring the contribution labor makes to production. Denison also evaluates the reliability of the basic data sources on labor inputs and finds them adequate for long-term productivity comparisons.

Capital as well as labor input is a part of the productivity measure. Richard and Nancy Rugles review the uses of measures of real capital stock and capital services and examine the available techniques for making such measurements. The "conventional" measures of real capital stock as derived from base-year cost of production valuation are found to be most relevant to productivity analysis even if not wholly satisfactory. Their finding that different measures of capital and output yield the same general conclusions about capital-output ratio changes over time agrees with Creamer's findings in his admirable review chapter of the National Bureau

studies of capital formation in major sectors. Schiff concludes the volume with an examination of the probable effects which rising wage rates and corporate tax rates have on capital formation through factor substitution within given technologies and shifts in production functions.

Needless to say, a reading of this volume is indispensable to technicians in the field of productivity analysis.

—SIDNEY SONENBLUM

National Planning Association
Washington, D.C.

1960 Survey of Consumer Finances. By Survey Research Center. Ann Arbor, University of Michigan, Institute for Social Research, 1961. 310 pp., bibliography. \$7.50.

Consumer Behavior in 1961—A Summary Report. Ann Arbor, Foundation for Research on Human Behavior, 1961. 38 pp. \$1.

Since 1946, the *Surveys of Consumer Finances* have provided continuous household financial data. The 1960 survey differed from its predecessors in that it was privately financed; earlier studies had been made by the Survey Research Center of the University of Michigan for the Federal Reserve Board, and the findings were published in the Federal Reserve Bulletin. Private financing of the 1960 study was made possible by a grant from the Ford Foundation and wider dissemination of survey data among academic economists was provided through the establishment of the "Executive Committee of the Survey of Consumer Finances" and annual summer workshops on the use of economic surveys.

This book is primarily a statistical summary of the 1960 survey; it provides interpretive data and discussions of the theoretical aspects of the work but only as required for an understanding of the detailed tabular data presented. Careful attention has been paid, however, to citations of earlier, more detailed discussions of the purposes and methods used in the survey itself and to analytical reports based on the results of earlier surveys.

The introduction discusses the origin of the surveys and relates them to other important continuing surveys and analytical work in the field of consumer finances and consumer attitudes. The report is divided into three main parts: the first deals with the financial data and the second

with consumer attitudes and inclinations to buy; the third part is a methodological appendix. Most of the financial data, which relate to 1959, are presented as distributions of spending units by levels of the financial variables such as income, expenditures for durables, and bank deposits, or the percentage of families purchasing homes, life insurance, etc. More important than the 1959 distributions, perhaps, is the information on changes in the distributions over recent years. These data are supplemented in chapter 1 by the results of a multiple regression analysis of characteristics which explain income, presented as factors which may be used to predict the 1959 income of specific types of spending units.

Information on purchase of consumer durables, including changes in trade-ins and borrowing for the purchase of consumer durables, generally covers the years 1953, 1955, 1958, and 1959. Although the data for 1959 do not reveal any unusual behavior in that year, the interpretation of the data on the percent of income spent on durables in relation to theories of "discretionary expenditures" leaves unanswered the question of the adequacy of the data for this use. Data collected in this survey on expenditures for durables are obtained in a single question, and the proportions of families buying furniture and appliances appear surprisingly low when compared with proportions reported from other sources. The problem of obtaining understatements in household surveys because of global questions is referred to in chapter 5.

The summarization of data on liquid asset holdings for selected years from 1946 in chapter 4 is supplemented in chapter 6 by data on the ownership of common stock. Valuable as these summaries are, analysts will probably be more interested in the information in chapter 7 on distribution of assets by type and information on consumer net worth which has not been available from this source since 1950-53.

The second part of the volume is introduced in chapter 9 by a general discussion of the function of motivational data and a description of the Center's work in the area of consumer attitudes and intentions to buy. In essence, this work has attempted to pull together measures of the "willingness to buy" which, when combined with measures of the "ability to buy," can be used in the analysis of business cycles and in economic forecasting. The consumer attitudinal questions are

of four types: (1) buying intentions, (2) attitudes toward personal financial situations, (3) attitudes toward business conditions, and (4) attitudes toward market conditions. This section of the book contains descriptions of the tests of the predictive value of these questions. The outlook for consumer demand in August 1960 was developed from information obtained in a telephone resurvey of persons interviewed in May 1960. The chapter includes an appendix which describes briefly some of the problems involved in the collection of these kinds of data by telephone interview. The August 1960 outlook is supplemented in a report of the Foundation for Research on Human Behavior entitled *Consumer Behavior in 1961*. This is a summary report of a 1-day working group meeting conducted by the Foundation for leaders in business, industry, and university research programs. In the opening chapter of this report, the Survey Research Center's index of consumer attitudes is discussed, including some information from the 1961 *Survey of Consumer Finances* relating to February 1961 and a discussion of the theory and methodology of this index as a predictor of consumer demand.

As intended by its authors, the principal value of the report of the 1960 *Survey of Consumer Finances* is that it brings together the important data obtained in the surveys in recent years and provides a ready reference to the more detailed reports and analytical studies based on the surveys since their inception in 1946.

—HELEN H. LAMALE

Division of Prices and Cost of Living
Bureau of Labor Statistics

Executive Retirement and Effective Management.

By Richard A. Beaumont and James W. Tower. New York, Industrial Relations Counselors, Inc., 1961. 248 pp., bibliography. (Industrial Relations Monograph 20.) \$7.50.

Although overwhelmingly prevalent, mandatory executive retirement policies rarely compel executives to retire. This major conclusion stems from the broader finding in this authoritative study that, "Executive retirement is tied to overall staffing; effective policies and practices in this area can therefore help a company maximize its utilization of its executive staff." Although only 49 out of 274

large companies surveyed were found to have flexible retirement policies, another 170 companies had applied the normal retirement age with flexibility. Moreover, "overall, retirement policies and practices [whether flexible or rigid] apparently have no marked influence on the distribution of executives by age level within organizations."

The study does more than report on retirement policies and practices. It seeks to uncover their underlying rationale, as revealed by interviews with executives of about a sixth of the companies surveyed. Also included is a report on the reactions of retired executives to their company's retirement practices, their reactions to retirement, and the nature of their retirement activities.

Executives, both retired and active, question the policy of retirement solely on the basis of chronological age. Are valuable skills and knowledge discarded or ineffectiveness tolerated merely to accommodate the uniform application of an arbitrary retirement age? Won't the rising proportion of older workers in the labor force require the more effective use of older executives as well as other older workers? The authors conclude that "It is reasonable . . . to envisage for the 10-year period starting in 1970 a situation in which, unless there are revolutionary changes in management staffing requirements, there will be a shortage of manpower from which future managers can be drawn. Such a situation may demand the retention of managers beyond the retirement ages considered normal today." Despite important differences between the retirement of executives and of other workers, the areas of similarity are indeed striking.

The distribution of retirement incomes (including social security benefits and pensions but excluding income from stock purchase, savings, etc.) in relation to preretirement earnings is also surprisingly similar to those of production workers under collectively bargained pension plans. It shows that nearly a fourth of the executives received retirement incomes of 30-39 percent of their average final 5-year earnings, another fourth received 40-49 percent, nearly a fourth received 50-59 percent, and a tenth got 60 percent or more. "Despite this pattern," the report points out, "a high proportion of the . . . companies report that one of the major problems they see for the future

in handling executive retirement is to find ways of improving retirement benefits." The same observation would probably be applicable to most pension plans for rank-and-file employees.

This report, in short, ably identifies the practices and problems in executive retirement. Although it has many data on company practices and helpful checklists for systematizing retirement-retention decisions, it is not a complete "how-to-do-it" handbook for the self-taught "expert." Rather it is a helpful guide to the key decisions required to administer executive retirement so as to maximize its contribution to effective overall staffing and management.

—DONALD M. LANDAY

Division of Wages and Industrial Relations
Bureau of Labor Statistics

Midcentury: A Contemporary Chronical. By John Dos Passos. Boston, Houghton Mifflin Co., 1961. 496 pp. \$5.95.

Old Dos Passos aficionados will be saddened upon reading this novel—purporting to deal with corruption in labor unions—by a man who has been one of the master delineators of our time in narrative prose.

One need only reread *Manhattan Transfer*, *The 42nd Parallel*, or *The Big Money* to grasp the fact that the peak of the great author's power and talent was reached more than a quarter of a century ago. True, most of the standard Dos Passos formula has been reconcocted: diverse characters,

snatches of news stories and headlines, biographies, and oddly assorted homilies. One important element is obviously lacking: the instruction to stir thoroughly. Instead of artfully commingling characters, events, and situations into a meaningful pattern, Dos Passos has combined an essentially weak plot with a stylized congressional investigation of labor unions to castigate union officials. Interspersed are brief biographies of Harry Bridges, John L. Lewis, Walter Reuther, and Dan Tobin. Thrown in for good measure, for reasons hard to discern, are biographies of Eleanor Roosevelt, Robert R. Young (the financier), J. Robert Oppenheimer, James Dean (the late actor), General William F. Dean, General Douglas MacArthur, and the younger Robert La Follette. Most of the portraits reveal a testy disdain on the author's part, especially for the trade union leaders. His characterization of Walter Reuther on page 141 as being "so convinced of the probity of his own intentions that he never could believe in the probity of people who had other ideas," so pleased him that he repeated it on page 276.

In general, the book leaves the impression of being hurried and poorly edited. For example, the syntax of the following sentence, quoted from page 416, is not worthy of one of the giants of American literature: "A young lady whose horse ran away when he took her out for a canter while he was stationed at Fort Douglas, Utah, ended by becoming his wife."

L.R.K.

Education and Training

The Instructor and His Job. By Homer C. Rose. [Chicago], American Technical Society, 1961. 280 pp. \$5.50.

A Comparative Study of Programmed and Conventional Instruction in Industry. By J. L. Hughes and W. J. McNamara. (In *Journal of Applied Psychology*, Washington, August 1961, pp. 225-231. \$2.)

Nursing Home Administration: Training Materials for Administrators of Nursing, Boarding, and Mental Hygiene Homes for the Aged. By John D. Gerletti, C. C. Crawford, Donovan J. Perkins. Downey, Calif., The Attending Staff Association, 1961. 472 pp., bibliography. \$6.50.

Vocational Training. Geneva, International Labor Office, 1961. 52 pp. (Report IV(1) prepared for International Labor Conference, 46th sess., 1962.) 60 cents. Distributed in United States by Washington Branch of ILO.

Sales Training for Older Workers: A Concentrated Attempt to Train and Place the Older Worker in the Retail Sales Field. By James F. McMichael. [Lansing, Mich., Community Services Council, 1961.] 5 pp.

Careers for Women in the Biological Sciences. By Mary C. Murphy and Evelyn S. Spiro. Washington, U.S. Department of Labor, Women's Bureau, 1961. 86 pp. (Bull. 278.) 40 cents, Superintendent of Documents, Washington.

Life Insurance Selling: Careers for Women as Life Underwriters. By Sylva Beyer and Sara F. Leiter. Washington, U.S. Department of Labor, Women's Bureau, 1961. 35 pp., bibliography. (Bull. 279.) 20 cents, Superintendent of Documents, Washington.

Health and Safety

Industrial Health Programs. Washington, Bureau of National Affairs, Inc., 1961. 17 pp. (Personnel Policies Forum Survey 61.) \$1.

Convulsive Disorders in a Working Population. By John G. Lione, M.D. (In *Journal of Occupational Medicine*, Chicago, August 1961, pp. 369-373. \$1.)

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Current Labor Statistics

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¹ This table is included in the January, April, July, and October issues of the Review.

NOTE: The following applies, with a few exceptions, to the statistical series published in the Current Labor Statistics section: (1) The source is the U.S. Department of Labor, Bureau of Labor Statistics, (2) a description of each series may be found in Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1964), and (3) the scope of coverage is the United States without Alaska and Hawaii. Exceptions are noted on the tables.

A.—Employment

TABLE A-1. Estimated total labor force classified by employment status, hours worked, and sex
(In thousands)

| Employment status | Estimated number of persons 14 years of age and over ¹ | | | | | | | | | | | | | | | |
|---|---|--------|--------|--------|--------|--------|--------|--------|-------------------|--------|--------|--------|----------------|--------|--------|--|
| | 1961 | | | | | | | | 1960 | | | | Annual average | | | |
| | Sept. | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. ² | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | |
| Total, both sexes | | | | | | | | | | | | | | | | |
| Total labor force..... | 73,670 | 75,610 | 76,153 | 76,700 | 74,059 | 73,216 | 73,540 | 72,894 | 72,361 | 73,079 | 73,746 | 73,592 | 73,672 | 71,946 | 71,284 | |
| Civilian labor force..... | 71,123 | 73,081 | 73,639 | 74,286 | 71,546 | 70,696 | 71,011 | 70,360 | 69,837 | 70,540 | 71,213 | 71,069 | 71,155 | 69,304 | 68,647 | |
| Unemployment..... | 4,085 | 4,542 | 5,140 | 5,580 | 4,768 | 4,962 | 5,495 | 5,705 | 5,385 | 4,540 | 4,031 | 3,579 | 3,388 | 3,813 | 4,681 | |
| Unemployment rate, seasonally adjusted ³ | 6.8 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | |
| Unemployed 5 weeks or less..... | 1,814 | 1,683 | 1,996 | 2,857 | 1,672 | 1,600 | 1,729 | 2,063 | 2,200 | 2,107 | 1,940 | 1,637 | 1,655 | 1,688 | 1,833 | |
| Unemployed 6-10 weeks..... | 638 | 1,046 | 1,243 | 845 | 851 | 827 | 1,057 | 1,408 | 1,281 | 994 | 847 | 689 | 603 | 778 | 950 | |
| Unemployed 11-14 weeks..... | 374 | 373 | 268 | 303 | 330 | 407 | 806 | 610 | 564 | 424 | 357 | 260 | 325 | 335 | 438 | |
| Unemployed 15-26 weeks..... | 497 | 527 | 608 | 647 | 1,008 | 1,205 | 1,063 | 950 | 696 | 516 | 458 | 492 | 388 | 469 | 785 | |
| Unemployed over 26 weeks..... | 760 | 913 | 1,026 | 928 | 907 | 923 | 799 | 674 | 643 | 499 | 499 | 500 | 417 | 571 | 907 | |
| Employment..... | 67,038 | 68,539 | 68,499 | 68,706 | 66,778 | 65,734 | 65,515 | 64,655 | 64,452 | 66,069 | 67,182 | 67,490 | 67,767 | 65,581 | 63,966 | |
| Nonagricultural..... | 61,372 | 62,215 | 62,046 | 62,035 | 61,284 | 60,734 | 60,539 | 59,947 | 59,818 | 61,059 | 61,516 | 61,244 | 61,179 | 59,745 | 58,122 | |
| Worked 35 hours or more..... | 47,473 | 46,080 | 44,981 | 47,803 | 47,927 | 47,450 | 47,301 | 45,341 | 47,132 | 47,075 | 41,598 | 47,545 | 48,284 | 45,068 | 44,573 | |
| Worked 15-34 hours..... | 7,285 | 6,644 | 6,857 | 7,081 | 7,533 | 7,536 | 7,522 | 8,952 | 7,414 | 8,044 | 8,454 | 8,371 | 7,247 | 8,531 | 7,324 | |
| Worked 1-14 hours..... | 3,369 | 3,071 | 3,067 | 3,406 | 3,858 | 3,736 | 3,900 | 3,722 | 3,483 | 3,569 | 3,967 | 3,369 | 3,142 | 3,172 | 3,047 | |
| With a job but not at work ⁴ | 2,747 | 4,621 | 7,162 | 3,688 | 1,916 | 1,811 | 1,816 | 1,933 | 1,789 | 1,752 | 1,746 | 1,957 | 2,508 | 2,974 | 2,876 | |
| Agricultural..... | 5,666 | 6,325 | 6,453 | 6,671 | 5,544 | 5,000 | 4,977 | 4,708 | 4,634 | 4,950 | 5,696 | 6,247 | 6,588 | 5,836 | 5,544 | |
| Worked 35 hours or more..... | 3,835 | 4,279 | 4,364 | 4,405 | 3,700 | 3,139 | 3,122 | 2,842 | 2,745 | 3,015 | 3,666 | 4,296 | 4,789 | 3,852 | 3,827 | |
| Worked 15-34 hours..... | 1,243 | 1,345 | 1,385 | 1,577 | 1,841 | 1,800 | 1,195 | 1,121 | 1,126 | 1,163 | 1,341 | 1,447 | 1,314 | 1,356 | 1,361 | |
| Worked 1-14 hours..... | 405 | 517 | 809 | 837 | 393 | 453 | 432 | 405 | 507 | 535 | 492 | 398 | 362 | 442 | 457 | |
| With a job but not at work ⁴ | 181 | 183 | 195 | 150 | 111 | 209 | 228 | 240 | 256 | 237 | 167 | 106 | 123 | 186 | 196 | |
| Males | | | | | | | | | | | | | | | | |
| Total labor force..... | 49,621 | 51,281 | 51,540 | 51,614 | 49,753 | 49,299 | 49,309 | 49,109 | 49,031 | 49,186 | 49,506 | 49,455 | 49,570 | 49,081 | 48,802 | |
| Civilian labor force..... | 47,107 | 48,784 | 49,058 | 49,142 | 47,272 | 46,812 | 46,812 | 46,608 | 46,539 | 46,688 | 47,005 | 46,964 | 47,085 | 46,562 | 46,197 | |
| Unemployment..... | 2,393 | 2,816 | 3,092 | 3,303 | 3,033 | 3,210 | 3,709 | 3,887 | 3,717 | 3,092 | 2,496 | 2,200 | 2,082 | 2,473 | 3,158 | |
| Employment..... | 44,713 | 45,968 | 45,966 | 45,839 | 44,238 | 43,602 | 43,103 | 42,721 | 42,822 | 43,596 | 44,509 | 44,764 | 45,003 | 44,089 | 43,042 | |
| Nonagricultural..... | 40,117 | 40,904 | 40,874 | 40,598 | 39,656 | 39,244 | 38,845 | 38,627 | 38,796 | 39,337 | 39,881 | 39,606 | 39,900 | 39,340 | 38,240 | |
| Worked 35 hours or more..... | 33,192 | 32,819 | 32,182 | 33,758 | 33,296 | 32,895 | 32,506 | 31,531 | 32,698 | 32,898 | 29,946 | 33,196 | 33,559 | 31,715 | 31,390 | |
| Worked 15-34 hours..... | 3,739 | 3,280 | 3,344 | 3,368 | 3,093 | 3,029 | 3,009 | 4,356 | 3,534 | 3,806 | 7,963 | 4,098 | 3,440 | 4,405 | 3,736 | |
| Worked 1-14 hours..... | 1,436 | 1,381 | 1,344 | 1,485 | 1,638 | 1,596 | 1,624 | 1,552 | 1,460 | 1,472 | 1,424 | 1,322 | 1,291 | 1,378 | 1,329 | |
| With a job but not at work ⁴ | 1,751 | 3,425 | 4,004 | 1,967 | 1,100 | 1,123 | 1,107 | 1,188 | 1,105 | 1,173 | 1,120 | 1,292 | 1,611 | 1,840 | 1,784 | |
| Agricultural..... | 4,597 | 5,064 | 5,092 | 5,241 | 4,553 | 4,298 | 4,258 | 4,094 | 4,027 | 4,259 | 4,620 | 4,855 | 5,103 | 4,749 | 4,902 | |
| Worked 35 hours or more..... | 3,344 | 3,716 | 3,758 | 3,804 | 3,325 | 2,859 | 2,849 | 2,699 | 2,530 | 2,747 | 3,260 | 3,675 | 4,016 | 3,421 | 3,413 | |
| Worked 15-34 hours..... | 800 | 843 | 813 | 921 | 843 | 831 | 841 | 832 | 813 | 830 | 843 | 786 | 725 | 823 | 857 | |
| Worked 1-14 hours..... | 302 | 361 | 351 | 379 | 289 | 384 | 356 | 438 | 455 | 396 | 294 | 257 | 336 | 336 | 353 | |
| With a job but not at work ⁴ | 150 | 144 | 170 | 138 | 96 | 194 | 213 | 217 | 233 | 217 | 156 | 99 | 106 | 170 | 179 | |
| Females | | | | | | | | | | | | | | | | |
| Total labor force..... | 24,048 | 24,329 | 24,612 | 25,176 | 24,306 | 23,916 | 24,232 | 23,785 | 23,330 | 23,893 | 24,240 | 24,135 | 24,102 | 22,865 | 22,482 | |
| Civilian labor force..... | 24,016 | 24,297 | 24,580 | 25,144 | 24,274 | 23,884 | 24,199 | 23,752 | 23,298 | 23,861 | 24,208 | 24,106 | 24,070 | 22,832 | 22,451 | |
| Unemployment..... | 1,692 | 1,728 | 2,048 | 2,277 | 1,734 | 1,692 | 1,788 | 1,818 | 1,699 | 1,448 | 1,536 | 1,379 | 1,307 | 1,800 | 1,626 | |
| Employment..... | 22,325 | 22,571 | 22,532 | 22,867 | 22,540 | 22,192 | 22,413 | 21,934 | 21,600 | 22,413 | 22,672 | 22,726 | 22,764 | 21,492 | 20,826 | |
| Nonagricultural..... | 21,256 | 21,311 | 21,172 | 21,437 | 21,849 | 21,490 | 21,695 | 21,321 | 21,023 | 21,722 | 21,636 | 21,333 | 21,279 | 20,405 | 19,882 | |
| Worked 35 hours or more..... | 14,282 | 13,962 | 12,798 | 14,044 | 14,641 | 14,754 | 14,794 | 13,809 | 14,434 | 14,788 | 12,255 | 14,347 | 14,724 | 13,332 | 13,453 | |
| Worked 15-34 hours..... | 4,046 | 3,364 | 3,493 | 3,693 | 3,930 | 3,907 | 3,913 | 4,596 | 3,880 | 4,238 | 4,490 | 4,272 | 3,807 | 4,126 | 3,589 | |
| Worked 1-14 hours..... | 1,934 | 1,691 | 1,723 | 1,960 | 2,220 | 2,141 | 2,276 | 2,170 | 2,023 | 2,117 | 2,264 | 2,047 | 1,851 | 1,794 | 1,718 | |
| With a job but not at work ⁴ | 1,069 | 2,095 | 3,158 | 1,721 | 756 | 688 | 709 | 744 | 684 | 579 | 628 | 665 | 897 | 1,134 | 1,069 | |
| Agricultural..... | 1,069 | 1,261 | 1,361 | 1,430 | 991 | 701 | 718 | 615 | 607 | 692 | 1,037 | 1,392 | 1,485 | 1,087 | 1,042 | |
| Worked 35 hours or more..... | 491 | 562 | 607 | 602 | 375 | 250 | 273 | 285 | 215 | 268 | 406 | 620 | 773 | 431 | 414 | |
| Worked 15-34 hours..... | 442 | 502 | 572 | 656 | 499 | 369 | 354 | 289 | 314 | 324 | 407 | 661 | 590 | 533 | 504 | |
| Worked 1-14 hours..... | 103 | 156 | 188 | 199 | 103 | 60 | 76 | 87 | 80 | 123 | 104 | 105 | 106 | 106 | 106 | |
| With a job but not at work ⁴ | 32 | 39 | 26 | 13 | 14 | 15 | 15 | 24 | 22 | 20 | 11 | 7 | 16 | 17 | 30 | |

¹ Estimates are based on information obtained from a sample of households and are subject to sampling variability. Data relate to the calendar week ending nearest the 15th day of the month. The employed total includes all wage and salary workers, self-employed persons, and unpaid workers in family-operated enterprises. Persons in institutions are not included.

² Because of rounding, sums of individual items do not necessarily equal totals.

³ Beginning in 1960, data include Alaska and Hawaii and are therefore not directly comparable with earlier data. The levels of the civilian labor force, the employed, and nonagricultural employment were each increased by more than 300,000. The estimates for agricultural employment and unemployment were affected so slightly that these series can be regarded as entirely comparable with pre-1960 data.

⁴ Unemployment as a percent of labor force.

⁵ Includes persons who had a job or business but who did not work during the survey week because of illness, bad weather, vacation, or labor disputes. Prior to January 1957, also included were persons on layoff with definite instructions to return to work within 30 days of layoff and persons who had new jobs to which they were scheduled to report within 30 days. Most of the persons in these groups have, since that time, been classified as unemployed.

NOTE: For a description of these series, see Explanatory Notes (in Employment and Earnings, U.S. Department of Labor, Bureau of Labor Statistics current issues).

TABLE A-2. Employees in nonagricultural establishments, by industry¹

| Industry | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|--|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Sept. ² | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | |
| Total employees..... | 53,672 | 53,153 | 52,851 | 53,123 | 52,407 | 51,843 | 51,397 | 51,090 | 51,437 | 53,310 | 53,133 | 53,391 | 53,496 | 51,976 | 50,543 | |
| Mining..... | 634 | 635 | 634 | 640 | 630 | 623 | 622 | 620 | 629 | 641 | 647 | 656 | 663 | 676 | 721 | |
| Metal..... | 88.0 | 86.1 | 88.2 | 88.1 | 86.6 | 85.5 | 85.9 | 85.5 | 86.4 | 90.4 | 90.0 | 92.6 | 93.7 | 80.1 | 93.1 | |
| Iron..... | 26.2 | 28.6 | 28.6 | 28.3 | 27.8 | 27.1 | 27.5 | 27.0 | 28.7 | 29.7 | 29.4 | 32.4 | 32.9 | 27.2 | 30.8 | |
| Copper..... | 32.2 | 31.8 | 31.9 | 31.3 | 30.6 | 30.1 | 30.5 | 30.6 | 32.4 | 32.6 | 32.6 | 32.4 | 32.3 | 22.3 | 26.3 | |
| Lead and zinc..... | 10.0 | 10.0 | 10.0 | 9.9 | 10.2 | 10.3 | 10.4 | 10.4 | 10.6 | 10.4 | 10.1 | 9.8 | 10.4 | 12.3 | 12.9 | |
| Anthracite..... | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 9.2 | 8.4 | 9.8 | 9.8 | 9.8 | 10.9 | 11.9 | 11.8 | 16.3 | 20.3 | |
| Bituminous coal..... | 133.7 | 132.2 | 126.7 | 137.4 | 136.3 | 136.1 | 139.8 | 142.1 | 141.8 | 144.9 | 147.0 | 150.0 | 151.4 | 168.1 | 195.3 | |
| Crude-petroleum and natural-gas production..... | 294.0 | 296.8 | 291.7 | 296.8 | 294.7 | 284.3 | 284.3 | 282.3 | 284.0 | 286.2 | 284.7 | 284.6 | 288.9 | 300.8 | 302.6 | |
| Petroleum and natural-gas production (except contract services)..... | 171.5 | 172.0 | 170.3 | 168.4 | 168.5 | 169.0 | 169.5 | 169.5 | 170.5 | 171.5 | 171.9 | 172.4 | 176.2 | 180.6 | 188.0 | |
| Nonmetallic mining and quarrying..... | 114.2 | 114.1 | 114.6 | 113.8 | 111.2 | 107.9 | 103.6 | 100.7 | 104.0 | 109.2 | 114.3 | 117.1 | 117.4 | 110.7 | 109.8 | |
| Contract construction..... | 3,103 | 3,165 | 3,094 | 3,034 | 2,799 | 2,617 | 2,414 | 2,364 | 2,395 | 2,552 | 2,847 | 3,006 | 3,069 | 2,767 | 2,448 | |
| Nonbuilding construction..... | 647 | 642 | 646 | 640 | 580 | 508 | 432 | 396 | 418 | 465 | 506 | 520 | 536 | 484 | 460 | |
| Highway and street construction..... | 332.5 | 328.5 | 325.9 | 280.7 | 230.7 | 183.4 | 159.3 | 173.0 | 201.8 | 271.6 | 307.7 | 314.0 | 271.2 | 256.0 | 256.0 | |
| Other nonbuilding construction..... | 314.8 | 313.9 | 320.0 | 299.1 | 277.2 | 245.3 | 236.2 | 244.8 | 263.6 | 294.0 | 312.8 | 323.9 | 312.7 | 313.3 | 313.3 | |
| Building construction..... | 2,518 | 2,452 | 2,388 | 2,219 | 2,109 | 1,982 | 1,868 | 1,967 | 2,087 | 2,281 | 2,386 | 2,431 | 2,183 | 2,079 | 2,079 | |
| General contractors..... | 867.3 | 842.8 | 816.5 | 749.9 | 703.1 | 651.9 | 611.5 | 652.3 | 698.8 | 774.4 | 809.6 | 836.7 | 757.9 | 750.6 | 750.6 | |
| Special-trade contractors..... | 1,651.1 | 1,609.2 | 1,571.3 | 1,469.0 | 1,406.1 | 1,330.1 | 1,256.6 | 1,314.7 | 1,388.2 | 1,506.3 | 1,575.0 | 1,594.8 | 1,424.7 | 1,328.6 | 1,328.6 | |
| Plumbing and heating..... | 318.3 | 315.3 | 310.5 | 302.4 | 298.5 | 283.7 | 289.8 | 298.8 | 305.7 | 312.4 | 319.9 | 327.3 | 310.5 | 303.6 | 303.6 | |
| Painting and decorating..... | 259.2 | 277.8 | 256.5 | 230.1 | 214.7 | 189.5 | 186.9 | 196.9 | 176.1 | 196.1 | 221.6 | 234.6 | 245.1 | 201.4 | 169.6 | |
| Electrical work..... | 201.4 | 195.5 | 186.1 | 174.2 | 173.3 | 173.1 | 175.1 | 180.9 | 188.7 | 193.9 | 199.3 | 202.2 | 174.2 | 173.2 | 173.2 | |
| Other special-trade contractors..... | 832.2 | 820.6 | 817.9 | 762.3 | 719.6 | 673.8 | 624.8 | 659.4 | 697.7 | 778.4 | 822.5 | 819.9 | 738.6 | 682.3 | 682.3 | |
| Manufacturing..... | 16,326 | 16,175 | 15,921 | 15,973 | 15,726 | 15,536 | 15,497 | 15,473 | 15,586 | 15,836 | 16,129 | 16,313 | 16,865 | 16,168 | 15,468 | |
| Durable goods..... | 9,280 | 9,151 | 9,111 | 9,167 | 9,039 | 8,865 | 8,806 | 8,804 | 8,902 | 9,065 | 9,235 | 9,305 | 9,403 | 9,290 | 8,743 | |
| Nondurable goods..... | 7,046 | 7,024 | 6,810 | 6,806 | 6,687 | 6,671 | 6,691 | 6,669 | 6,678 | 6,771 | 6,894 | 7,008 | 7,102 | 6,878 | 6,725 | |
| Durable goods | | | | | | | | | | | | | | | | |
| Ordinances and accessories..... | 159.5 | 157.0 | 156.0 | 154.4 | 153.4 | 152.4 | 153.3 | 153.2 | 152.9 | 152.7 | 151.5 | 148.9 | 150.2 | 141.7 | 126.7 | |
| Lumber and wood products (except furniture)..... | 650.3 | 650.2 | 654.6 | 660.3 | 617.2 | 585.4 | 563.1 | 560.7 | 573.2 | 583.4 | 613.5 | 648.9 | 668.6 | 658.0 | 621.7 | |
| Lodging camps and contractors..... | 126.3 | 130.6 | 132.8 | 103.7 | 86.0 | 75.8 | 79.9 | 88.1 | 80.2 | 102.5 | 110.3 | 122.1 | 98.7 | 96.2 | 96.2 | |
| Sawmills and planing mills..... | 302.6 | 297.2 | 298.8 | 290.5 | 280.7 | 271.9 | 270.5 | 274.0 | 279.3 | 292.7 | 304.4 | 313.3 | 319.9 | 311.0 | 311.0 | |
| Millwork, plywood, and prefabricated structural wood products..... | 135.3 | 132.0 | 132.5 | 128.0 | 124.2 | 119.4 | 117.5 | 118.8 | 121.8 | 123.0 | 127.8 | 131.1 | 139.1 | 127.1 | 127.1 | |
| Wooden containers..... | 39.7 | 40.0 | 41.1 | 40.8 | 39.7 | 39.0 | 38.9 | 38.7 | 39.4 | 40.6 | 41.7 | 42.4 | 44.0 | 44.7 | 44.7 | |
| Miscellaneous wood products..... | 55.1 | 54.8 | 55.1 | 54.2 | 54.2 | 54.0 | 53.9 | 53.6 | 53.7 | 54.7 | 55.7 | 56.7 | 56.8 | 56.8 | 56.8 | |
| Furniture and fixtures..... | 389.5 | 383.8 | 372.3 | 372.5 | 367.8 | 368.4 | 366.4 | 366.4 | 365.8 | 373.3 | 384.5 | 391.9 | 393.0 | 384.0 | 357.9 | |
| Household furniture..... | 277.3 | 269.6 | 268.5 | 266.0 | 268.3 | 265.6 | 265.4 | 262.9 | 262.9 | 268.3 | 276.7 | 281.7 | 281.6 | 279.3 | 257.1 | |
| Office, public-building and professional furniture..... | 48.2 | 46.0 | 47.1 | 46.1 | 46.0 | 46.0 | 45.8 | 46.2 | 46.9 | 48.1 | 49.5 | 50.2 | 46.1 | 43.8 | 43.8 | |
| Partitions, shelving, lockers, and fixtures..... | 34.9 | 33.8 | 34.0 | 33.3 | 32.3 | 32.3 | 33.5 | 33.5 | 33.5 | 34.3 | 35.4 | 36.5 | 37.0 | 34.4 | 34.5 | |
| Screens, blinds, and miscellaneous furniture and fixtures..... | 23.4 | 22.9 | 22.0 | 22.4 | 21.8 | 21.3 | 21.7 | 22.9 | 23.8 | 24.3 | 24.2 | 24.3 | 24.2 | 22.8 | 22.8 | |
| Stone, clay, and glass products..... | 541.3 | 544.7 | 538.3 | 525.7 | 515.9 | 507.1 | 500.4 | 505.4 | 522.4 | 536.9 | 547.9 | 555.3 | 554.4 | 514.8 | 514.8 | |
| Flat glass..... | 29.5 | 28.4 | 27.2 | 27.2 | 26.4 | 27.4 | 27.4 | 29.6 | 30.9 | 29.7 | 30.6 | 30.3 | 32.7 | 27.3 | 27.3 | |
| Glass and glassware, pressed or blown..... | 107.9 | 106.1 | 105.6 | 104.7 | 103.4 | 102.9 | 101.3 | 90.1 | 102.2 | 104.5 | 106.0 | 108.5 | 106.2 | 95.5 | 95.5 | |
| Glass products made of purchased glass..... | 16.5 | 16.3 | 16.0 | 15.9 | 15.7 | 16.0 | 16.4 | 16.3 | 17.4 | 17.8 | 17.4 | 17.2 | 18.0 | 16.3 | 16.3 | |
| Cement, hydraulic..... | 39.7 | 40.4 | 40.3 | 39.0 | 38.2 | 35.8 | 34.7 | 36.2 | 37.6 | 39.1 | 40.7 | 41.9 | 41.7 | 42.0 | 42.0 | |
| Structural clay products..... | 70.7 | 70.8 | 70.0 | 68.4 | 67.0 | 64.4 | 62.0 | 63.1 | 67.0 | 70.3 | 72.1 | 73.8 | 75.5 | 73.1 | 73.1 | |
| Pottery and related products..... | 44.0 | 42.1 | 43.3 | 43.3 | 43.3 | 43.1 | 43.4 | 43.4 | 43.8 | 45.8 | 47.0 | 47.4 | 48.1 | 43.9 | 43.9 | |
| Concrete, gypsum, and plaster products..... | 119.4 | 117.9 | 116.5 | 113.4 | 110.6 | 108.0 | 106.1 | 107.0 | 110.6 | 114.7 | 117.5 | 118.2 | 117.8 | 108.8 | 108.8 | |
| Cut-stone and stone products..... | 17.9 | 17.9 | 17.9 | 18.0 | 17.7 | 17.2 | 17.0 | 16.9 | 17.7 | 18.1 | 18.5 | 18.7 | 18.1 | 18.3 | 18.3 | |
| Miscellaneous nonmetallic mineral products..... | 99.1 | 98.4 | 97.6 | 95.6 | 93.6 | 92.3 | 92.1 | 93.6 | 95.2 | 97.2 | 98.1 | 99.3 | 98.3 | 89.3 | 89.3 | |
| Primary metal industries..... | 1,144.9 | 1,131.5 | 1,120.3 | 1,118.7 | 1,096.8 | 1,063.8 | 1,051.8 | 1,040.3 | 1,039.3 | 1,074.2 | 1,065.1 | 1,118.1 | 1,133.3 | 1,137.7 | 1,104.4 | |
| Blast furnaces, steel works, and rolling mills..... | 542.7 | 538.1 | 532.2 | 519.7 | 499.9 | 488.6 | 482.3 | 479.7 | 484.7 | 490.0 | 515.3 | 524.6 | 522.0 | 536.7 | 536.7 | |
| Iron and steel foundries..... | 210.6 | 208.4 | 208.8 | 205.4 | 200.3 | 200.4 | 201.6 | 206.8 | 211.2 | 213.9 | 216.6 | 219.2 | 223.9 | 197.4 | 197.4 | |
| Primary smelting and refining of nonferrous metals..... | 54.5 | 54.4 | 54.6 | 53.3 | 52.8 | 53.3 | 54.1 | 55.5 | 56.1 | 56.2 | 56.6 | 57.4 | 52.2 | 56.2 | 56.2 | |
| Secondary smelting and refining of nonferrous metals..... | 12.0 | 11.8 | 11.8 | 11.4 | 11.3 | 11.3 | 11.2 | 11.6 | 11.8 | 11.8 | 12.0 | 12.3 | 12.2 | 11.8 | 11.8 | |
| Rolling, drawing, and alloying of nonferrous metals..... | 112.9 | 110.5 | 112.2 | 110.9 | 109.0 | 107.9 | 108.0 | 108.7 | 110.4 | 110.6 | 112.0 | 112.4 | 115.8 | 105.5 | 105.5 | |
| Nonferrous foundries..... | 56.4 | 55.7 | 57.5 | 56.3 | 54.9 | 55.0 | 55.9 | 57.3 | 58.9 | 59.2 | 60.7 | 60.8 | 64.8 | 57.7 | 57.7 | |
| Miscellaneous primary metal industries..... | 142.4 | 141.4 | 141.6 | 139.8 | 135.6 | 135.3 | 136.2 | 139.7 | 141.3 | 144.4 | 144.9 | 146.6 | 146.8 | 139.4 | 139.4 | |

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

| Industry | 1961 | | | | | | | | | | | | 1960 | | | | Annual average | |
|---|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|----------------|--|
| | | | | | | | | | | | | | | | | | | |
| | Sept. ² | Aug. ³ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | | | | |
| <i>Durable goods—Continued</i> | | | | | | | | | | | | | | | | | | |
| Fabricated metal products (except ordnance, machinery, and transportation equipment)..... | 1,058.4 | 1,051.3 | 1,026.2 | 1,042.9 | 1,027.4 | 1,000.4 | 987.8 | 993.8 | 1,012.6 | 1,036.7 | 1,061.3 | 1,078.9 | 1,081.0 | 1,069.0 | 1,029.9 | | | |
| Tin cans and other tinware..... | 62.2 | 61.2 | 60.0 | 59.3 | 58.2 | 56.8 | 55.5 | 54.8 | 55.5 | 55.9 | 57.8 | 61.3 | 59.6 | 58.2 | | | | |
| Cutlery, handtools, and hardware..... | 130.0 | 124.0 | 128.5 | 127.2 | 120.7 | 123.4 | 125.1 | 128.1 | 130.8 | 132.5 | 132.6 | 131.2 | 134.2 | 128.3 | | | | |
| Heating apparatus (except electric) and plumbers' supplies..... | 111.8 | 109.0 | 110.4 | 109.3 | 108.6 | 105.3 | 104.4 | 106.7 | 107.6 | 109.5 | 112.9 | 113.6 | 116.6 | 106.8 | | | | |
| Fabricated structural metal products..... | 289.9 | 286.3 | 285.3 | 277.8 | 274.7 | 270.6 | 271.4 | 274.8 | 283.7 | 289.6 | 294.6 | 298.8 | 288.3 | 308.0 | | | | |
| Metal stamping, coating, and engraving..... | 220.0 | 213.1 | 224.7 | 223.7 | 214.1 | 207.2 | 210.7 | 220.1 | 228.2 | 237.2 | 240.9 | 238.2 | 230.1 | 210.7 | | | | |
| Lighting fixtures..... | 48.7 | 46.6 | 47.5 | 45.7 | 45.5 | 45.5 | 46.2 | 46.6 | 48.4 | 49.4 | 49.9 | 49.7 | 49.2 | 44.7 | | | | |
| Fabricated wire products..... | 53.7 | 52.2 | 53.1 | 52.7 | 51.0 | 49.8 | 50.7 | 51.2 | 52.3 | 53.6 | 55.0 | 55.6 | 56.5 | 52.4 | | | | |
| Miscellaneous fabricated metal products..... | 135.0 | 133.8 | 133.4 | 131.7 | 129.6 | 129.2 | 129.8 | 130.3 | 130.2 | 133.6 | 135.2 | 135.6 | 137.5 | 123.3 | | | | |
| Machinery (except electrical)..... | 1,570.4 | 1,569.1 | 1,580.3 | 1,579.4 | 1,578.4 | 1,573.9 | 1,575.8 | 1,572.7 | 1,579.0 | 1,583.2 | 1,585.4 | 1,605.1 | 1,611.7 | 1,501.2 | | | | |
| Engines and turbines..... | 96.1 | 94.2 | 95.4 | 97.5 | 97.5 | 96.3 | 96.3 | 97.0 | 98.0 | 97.8 | 96.0 | 99.3 | 103.1 | 93.1 | | | | |
| Agricultural machinery and tractors..... | 135.1 | 141.9 | 146.6 | 152.9 | 156.0 | 153.9 | 151.3 | 146.3 | 143.2 | 138.7 | 139.1 | 139.6 | 137.9 | 136.0 | | | | |
| Construction and mining machinery..... | 115.4 | 115.4 | 115.2 | 114.2 | 113.4 | 112.3 | 112.6 | 111.7 | 111.6 | 112.9 | 116.6 | 119.2 | 129.9 | 122.0 | | | | |
| Metalworking machinery..... | 241.2 | 240.2 | 243.0 | 239.6 | 244.4 | 245.0 | 245.7 | 245.4 | 246.2 | 246.6 | 247.9 | 249.7 | 238.7 | 223.7 | | | | |
| Special industry machinery (except metalworking machinery)..... | 173.2 | 172.5 | 174.2 | 173.0 | 171.4 | 172.1 | 173.3 | 173.3 | 174.6 | 175.5 | 176.0 | 176.3 | 165.5 | 159.6 | | | | |
| General industrial machinery..... | 214.7 | 215.0 | 215.6 | 213.6 | 211.7 | 212.1 | 213.0 | 215.2 | 218.1 | 221.0 | 222.6 | 226.7 | 223.5 | 220.1 | | | | |
| Office and store machines and devices..... | 145.5 | 144.3 | 144.1 | 142.8 | 143.1 | 142.2 | 142.7 | 142.7 | 142.6 | 142.7 | 142.8 | 142.0 | 132.7 | 124.9 | | | | |
| Service industry and household machines..... | 174.9 | 180.6 | 182.3 | 185.5 | 184.1 | 184.0 | 183.3 | 180.5 | 179.5 | 180.4 | 173.5 | 180.0 | 184.9 | 168.0 | | | | |
| Miscellaneous machinery parts..... | 267.3 | 264.8 | 263.9 | 260.3 | 256.8 | 256.0 | 257.6 | 260.6 | 265.1 | 267.6 | 271.1 | 272.3 | 278.5 | 252.0 | | | | |
| Electrical machinery..... | 1,350.0 | 1,326.4 | 1,303.5 | 1,308.2 | 1,296.6 | 1,285.2 | 1,288.6 | 1,292.0 | 1,297.9 | 1,300.4 | 1,320.5 | 1,294.9 | 1,326.7 | 1,341.6 | 1,118.8 | | | |
| Electrical generating, transmission, distribution, and industrial apparatus..... | 414.6 | 411.6 | 411.3 | 407.6 | 404.9 | 404.6 | 405.3 | 407.6 | 409.1 | 409.2 | 387.3 | 415.9 | 402.1 | 373.5 | | | | |
| Electrical appliances..... | 38.5 | 37.2 | 38.3 | 37.6 | 37.5 | 37.3 | 36.2 | 35.7 | 37.3 | 41.4 | 40.1 | 40.2 | 37.7 | 34.6 | | | | |
| Insulated wire and cable..... | 29.9 | 26.9 | 28.3 | 26.4 | 28.0 | 28.4 | 28.2 | 28.4 | 28.9 | 29.2 | 29.0 | 28.3 | 28.1 | 28.4 | | | | |
| Electrical equipment for vehicles..... | 65.8 | 65.3 | 67.1 | 66.6 | 63.7 | 65.3 | 67.0 | 69.8 | 72.4 | 72.9 | 72.9 | 72.5 | 69.8 | 61.8 | | | | |
| Electric lamps..... | 25.7 | 25.6 | 25.4 | 25.8 | 26.0 | 26.2 | 26.7 | 27.2 | 27.7 | 28.0 | 28.6 | 28.1 | 27.6 | 26.4 | | | | |
| Communication equipment..... | 703.4 | 689.4 | 690.1 | 685.4 | 678.2 | 679.8 | 681.7 | 681.9 | 678.9 | 690.6 | 684.1 | 690.9 | 627.2 | 581.4 | | | | |
| Miscellaneous electrical products..... | 45.5 | 47.5 | 47.7 | 47.2 | 46.9 | 47.3 | 46.9 | 47.3 | 47.3 | 49.2 | 49.2 | 49.8 | 49.1 | 45.7 | | | | |
| Transportation equipment..... | 1,532.3 | 1,467.9 | 1,536.9 | 1,549.2 | 1,543.3 | 1,490.6 | 1,499.4 | 1,498.1 | 1,555.1 | 1,611.5 | 1,631.0 | 1,629.8 | 1,620.0 | 1,670.8 | 1,592.8 | | | |
| Motor vehicles and equipment..... | 635.0 | 706.7 | 717.2 | 708.4 | 657.8 | 655.3 | 657.9 | 711.7 | 765.9 | 781.0 | 783.5 | 767.2 | 731.6 | 630.8 | | | | |
| Aircraft and parts..... | 636.5 | 639.0 | 637.4 | 639.9 | 643.5 | 647.5 | 644.7 | 643.3 | 644.7 | 644.1 | 634.7 | 640.0 | 634.9 | 757.6 | | | | |
| Aircraft..... | 364.3 | 363.4 | 361.4 | 362.1 | 363.9 | 367.4 | 365.4 | 366.3 | 368.2 | 370.1 | 370.2 | 371.1 | 435.0 | 457.2 | | | | |
| Aircraft engines and parts..... | 136.5 | 140.2 | 140.4 | 141.2 | 141.5 | 141.3 | 140.0 | 138.0 | 137.2 | 135.5 | 127.5 | 133.2 | 146.3 | 152.6 | | | | |
| Aircraft propellers and parts..... | 11.8 | 12.0 | 12.1 | 12.4 | 12.7 | 12.7 | 12.5 | 12.1 | 11.9 | 11.8 | 11.8 | 12.0 | 14.4 | 18.3 | | | | |
| Other aircraft parts and equipment..... | 123.9 | 123.4 | 123.5 | 124.2 | 125.4 | 126.1 | 126.8 | 126.9 | 126.6 | 126.7 | 125.2 | 123.7 | 129.2 | 129.5 | | | | |
| Ship and boat building and repairing..... | 141.2 | 137.0 | 139.2 | 141.3 | 141.6 | 142.4 | 140.3 | 141.9 | 141.2 | 142.1 | 143.4 | 143.4 | 142.8 | 144.5 | | | | |
| Shipbuilding and repairing..... | 125.0 | 120.0 | 120.2 | 120.7 | 120.5 | 122.0 | 120.3 | 122.2 | 122.8 | 122.0 | 124.3 | 124.3 | 120.9 | 125.3 | | | | |
| Boatbuilding and repairing..... | 16.2 | 17.0 | 19.0 | 20.6 | 21.1 | 20.4 | 20.0 | 19.7 | 18.4 | 20.1 | 19.1 | 19.1 | 21.9 | 19.2 | | | | |
| Railroad equipment..... | 45.3 | 44.4 | 45.5 | 44.2 | 44.4 | 45.2 | 46.5 | 50.3 | 52.0 | 54.6 | 57.7 | 58.6 | 51.4 | 50.0 | | | | |
| Other transportation equipment..... | 9.9 | 9.8 | 9.9 | 9.5 | 9.3 | 9.0 | 8.7 | 7.9 | 8.8 | 9.2 | 10.6 | 10.8 | 10.1 | 9.0 | | | | |
| Instruments and related products..... | 349.2 | 345.9 | 340.4 | 341.1 | 337.8 | 335.2 | 335.9 | 336.8 | 340.5 | 344.0 | 347.3 | 348.1 | 350.8 | 338.9 | 315.2 | | | |
| Laboratory, scientific, and engineering instruments..... | 62.8 | 62.4 | 63.6 | 63.8 | 64.3 | 65.1 | 65.3 | 65.6 | 65.9 | 65.8 | 65.5 | 65.6 | 64.2 | 66.1 | | | | |
| Mechanical measuring and controlling instruments..... | 99.4 | 98.4 | 98.8 | 98.6 | 97.4 | 96.7 | 97.1 | 97.4 | 97.6 | 97.2 | 97.9 | 97.8 | 98.0 | 98.0 | | | | |
| Optical instruments and lenses..... | 18.3 | 18.1 | 18.1 | 17.8 | 17.7 | 17.9 | 17.8 | 18.1 | 18.3 | 18.6 | 18.7 | 18.4 | 18.5 | 14.0 | | | | |
| Surgical, medical, and dental instruments..... | 45.2 | 44.6 | 44.8 | 44.6 | 44.5 | 44.6 | 44.8 | 44.8 | 44.8 | 45.0 | 45.0 | 45.1 | 43.1 | 41.5 | | | | |
| Ophthalmic goods..... | 25.5 | 25.0 | 25.3 | 24.9 | 24.4 | 24.3 | 24.5 | 24.7 | 24.6 | 26.2 | 26.1 | 26.7 | 26.7 | 23.7 | | | | |
| Photographic apparatus..... | 65.4 | 64.6 | 64.3 | 63.2 | 63.2 | 63.3 | 63.9 | 64.9 | 65.7 | 67.2 | 67.6 | 67.5 | 65.3 | 65.6 | | | | |
| Watches and clocks..... | 29.3 | 27.3 | 28.2 | 28.0 | 29.7 | 29.4 | 29.4 | 29.4 | 29.4 | 27.2 | 27.4 | 28.5 | 31.4 | 28.4 | | | | |
| Miscellaneous manufacturing industries..... | 533.7 | 519.8 | 493.7 | 505.5 | 493.9 | 482.9 | 478.6 | 477.1 | 467.3 | 484.9 | 509.8 | 522.2 | 522.3 | 486.5 | 459.9 | | | |
| Jewelry, silverware, and plated ware..... | 44.6 | 42.5 | 43.6 | 43.5 | 43.9 | 43.9 | 44.9 | 44.7 | 45.6 | 46.6 | 47.5 | 46.9 | 45.9 | 44.4 | | | | |
| Musical instruments and parts..... | 16.2 | 15.5 | 17.5 | 17.6 | 17.6 | 17.7 | 17.7 | 17.8 | 18.0 | 17.9 | 19.1 | 19.2 | 18.0 | 16.4 | | | | |
| Toys and sporting goods..... | 107.1 | 98.6 | 101.4 | 97.3 | 91.1 | 86.1 | 82.3 | 75.2 | 83.9 | 97.1 | 104.5 | 104.7 | 84.5 | 81.7 | | | | |
| Pens, pencils, other office supplies..... | 33.9 | 32.7 | 32.5 | 31.8 | 31.4 | 31.8 | 31.7 | 31.7 | 32.1 | 32.5 | 33.2 | 32.8 | 30.8 | 30.7 | | | | |
| Costume jewelry, buttons, notions..... | 57.4 | 53.6 | 55.2 | 53.2 | 52.6 | 54.1 | 54.9 | 54.2 | 55.6 | 58.5 | 60.6 | 60.6 | 60.6 | 56.2 | | | | |
| Fabricated plastic products..... | 101.0 | 96.5 | 97.0 | 98.0 | 92.8 | 91.4 | 91.9 | 91.3 | 93.0 | 95.9 | 95.4 | 96.2 | 92.6 | 84.0 | | | | |
| Other manufacturing industries..... | 159.6 | 154.3 | 158.3 | 155.3 | 153.5 | 153.9 | 153.7 | 152.4 | 157.9 | 160.4 | 161.9 | 161.9 | 154.1 | 144.5 | | | | |
| <i>Nondurable goods</i> | | | | | | | | | | | | | | | | | | |
| Food and kindred products..... | 1,622.6 | 1,606.8 | 1,514.0 | 1,462.7 | 1,402.1 | 1,390.0 | 1,381.8 | 1,371.7 | 1,390.3 | 1,434.5 | 1,486.5 | 1,567.0 | 1,628.9 | 1,470.2 | 1,476.4 | | | |
| Meat products..... | 302.5 | 303.8 | 304.2 | 297.1 | 292.2 | 291.6 | 292.1 | 299.0 | 303.6 | 309.5 | 310.7 | 310.9 | 302.1 | 307.0 | | | | |
| Dairy products..... | 100.5 | 101.1 | 99.5 | 95.0 | 93.0 | 91.0 | 88.6 | 88.8 | 90.8 | 91.4 | 94.0 | 97.4 | 96.5 | 99.8 | | | | |
| Canning and preserving..... | 348.8 | 250.3 | 217.2 | 190.9 | 190.8 | 182.9 | 175.5 | 177.2 | 192.3 | 224.6 | 291.1 | 362.5 | 223.0 | 220.4 | | | | |
| Grain-mill products..... | 113.0 | 112.4 | 110.7 | 108.5 | 107.7 | 107.7 | 107.4 | 108.5 | 107.8 | 107.8 | 110.5 | 110.4 | 113.3 | 113.8 | | | | |
| Bakery products..... | 288.9 | 289.6 | 289.2 | 284.6 | 282.8 | 284.1 | 283.5 | 284.4 | 288.6 | 289.8 | 292.0 | 290.8 | 285.2 | 284.3 | | | | |
| Sugar..... | 27.0 | 25.7 | 24.8 | 24.7 | 26.1 | 24.4 | 25.1 | 31.5 | 37.9 | 42.8 | 39.4 | 27.6 | 31.0 | 31.4 | | | | |
| Confectionery and related products..... | 74.3 | 65.7 | 69.3 | 65.7 | 65.7 | 70.4 | 72.0 | 72.0 | 77.1 | 78.6 | 79.3 | 77.0 | 78.8 | 75.4 | | | | |
| Beverages..... | 215.5 | 218.2 | 210.1 | 204.1 | 202.3 | 200.4 | 197.7 | 198.7 | 205.6 | 209.5 | 214.9 | 216.3 | 209.1 | 207.0 | | | | |
| Miscellaneous food products..... | 136.3 | 138.1 | 137.7 | 131.5 | 129.4 | 129.3 | 129.8 | 130.2 | 130.6 | 132.4 | 135.1 | 136.0 | 136.2 | 137.3 | | | | |

See footnotes at end of table.

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TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

| Industry | 1961 | | | | | | | | | | | 1960 | | Annual average | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
| | Sept. 1 | Aug. 1 | July | June | May | April | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Nondurable goods—Continued</i> | | | | | | | | | | | | | | | |
| Tobacco manufactures..... | 107.9 | 89.5 | 72.1 | 74.1 | 73.4 | 74.4 | 78.0 | 82.3 | 85.5 | 88.5 | 92.4 | 104.5 | 107.5 | 89.2 | 90.4 |
| Cigarettes..... | 38.1 | 37.5 | 38.1 | 37.3 | 37.1 | 37.2 | 37.3 | 37.5 | 37.6 | 37.6 | 37.9 | 37.8 | 38.2 | 37.4 | 36.4 |
| Cigars..... | 21.8 | 20.6 | 22.6 | 22.7 | 22.6 | 23.2 | 23.9 | 23.8 | 25.1 | 25.6 | 25.7 | 25.7 | 25.5 | 27.1 | 29.1 |
| Tobacco and snuff..... | 5.8 | 5.9 | 5.0 | 5.0 | 5.0 | 5.9 | 5.9 | 6.0 | 5.9 | 6.0 | 6.1 | 5.9 | 6.0 | 6.6 | 6.5 |
| Tobacco stemming and redrying..... | 23.8 | 7.8 | 7.5 | 7.5 | 7.5 | 8.8 | 11.0 | 14.9 | 18.2 | 19.8 | 22.8 | 35.1 | 37.8 | 18.1 | 18.4 |
| Textile-mill products..... | 932.9 | 929.6 | 914.4 | 927.1 | 918.0 | 907.7 | 900.6 | 896.4 | 899.5 | 911.9 | 925.6 | 933.2 | 943.3 | 966.0 | 941.5 |
| Scouring and combing plants..... | 5.5 | 5.3 | 5.4 | 5.1 | 5.0 | 4.8 | 4.6 | 4.6 | 4.8 | 4.9 | 5.1 | 5.1 | 5.2 | 5.5 | 5.2 |
| Yarn and thread mills..... | 102.4 | 100.1 | 100.9 | 99.5 | 98.5 | 97.9 | 97.4 | 97.1 | 97.0 | 98.9 | 99.7 | 100.5 | 102.4 | 110.0 | 108.2 |
| Broad-woven fabric mills..... | 371.6 | 369.7 | 373.2 | 370.2 | 369.5 | 369.5 | 371.5 | 373.0 | 375.6 | 377.4 | 379.7 | 384.5 | 398.5 | 399.9 | 376.5 |
| Narrow fabrics and small wares..... | 28.3 | 27.8 | 28.1 | 28.1 | 27.9 | 27.5 | 27.7 | 27.6 | 27.9 | 28.1 | 28.3 | 29.0 | 29.5 | 27.5 | 27.5 |
| Knitting mills..... | 226.2 | 220.5 | 224.9 | 220.5 | 216.7 | 211.8 | 207.3 | 204.2 | 209.3 | 218.6 | 222.0 | 224.1 | 220.1 | 207.0 | 207.0 |
| Dyeing and finishing textiles..... | 88.8 | 87.5 | 88.2 | 86.9 | 86.9 | 86.0 | 85.7 | 85.9 | 87.0 | 87.5 | 87.8 | 87.8 | 88.4 | 88.4 | 84.9 |
| Carpets, rugs, other floor coverings..... | 41.5 | 40.1 | 41.4 | 41.7 | 41.2 | 42.2 | 42.5 | 42.8 | 43.3 | 43.5 | 43.5 | 44.0 | 44.6 | 44.6 | 44.8 |
| Hats (except cloth and millinery)..... | 9.8 | 9.4 | 9.8 | 9.2 | 8.2 | 8.7 | 9.2 | 9.2 | 9.0 | 8.9 | 9.0 | 9.3 | 10.1 | 10.1 | 10.1 |
| Miscellaneous textile goods..... | 55.5 | 54.0 | 55.2 | 54.8 | 53.5 | 52.3 | 52.3 | 52.6 | 54.9 | 55.8 | 56.9 | 57.1 | 57.0 | 57.3 | 53.9 |
| Apparel and other finished textile products..... | 1,197.3 | 1,217.5 | 1,154.4 | 1,176.6 | 1,161.2 | 1,168.7 | 1,200.9 | 1,191.8 | 1,165.2 | 1,178.6 | 1,209.5 | 1,209.0 | 1,225.1 | 1,210.7 | 1,156.3 |
| Men's and boys' suits and coats..... | 111.9 | 106.4 | 111.3 | 107.1 | 105.8 | 110.9 | 112.4 | 112.7 | 112.8 | 114.1 | 115.1 | 115.8 | 111.4 | 107.3 | 107.3 |
| Men's and boys' furnishings and work clothing..... | 355.8 | 342.6 | 348.2 | 342.7 | 340.5 | 340.3 | 339.3 | 332.4 | 338.2 | 343.6 | 349.1 | 356.5 | 358.3 | 311.3 | 311.3 |
| Women's outerwear..... | 332.9 | 312.3 | 317.1 | 318.7 | 331.0 | 347.0 | 337.9 | 327.1 | 328.0 | 337.4 | 326.2 | 334.0 | 344.7 | 339.7 | 339.7 |
| Women's, children's undergarments..... | 116.1 | 108.9 | 112.8 | 112.8 | 113.3 | 113.7 | 113.5 | 111.5 | 115.1 | 118.7 | 119.2 | 118.8 | 118.9 | 114.1 | 114.1 |
| Millinery..... | 20.2 | 16.4 | 14.4 | 12.2 | 15.6 | 23.4 | 23.4 | 19.3 | 16.8 | 16.3 | 18.7 | 18.9 | 18.5 | 17.9 | 17.9 |
| Children's outerwear..... | 73.7 | 72.9 | 73.0 | 70.5 | 66.7 | 70.8 | 72.9 | 71.1 | 68.9 | 71.0 | 71.6 | 71.9 | 74.4 | 73.6 | 73.6 |
| Fur goods..... | 7.4 | 7.3 | 7.4 | 6.9 | 5.8 | 5.9 | 6.0 | 6.4 | 7.3 | 8.3 | 8.3 | 8.0 | 9.2 | 10.7 | 10.7 |
| Miscellaneous apparel and accessories..... | 61.1 | 55.5 | 58.0 | 57.0 | 57.2 | 58.1 | 57.4 | 54.5 | 61.2 | 61.2 | 61.2 | 61.8 | 60.3 | 56.7 | 56.7 |
| Other fabricated textile products..... | 138.4 | 132.1 | 134.4 | 133.3 | 132.8 | 130.8 | 128.7 | 130.2 | 134.1 | 138.9 | 139.7 | 139.4 | 135.0 | 126.0 | 126.0 |
| Paper and allied products..... | 559.2 | 557.6 | 551.2 | 556.7 | 548.0 | 545.8 | 545.4 | 544.1 | 548.0 | 551.9 | 559.9 | 563.9 | 567.7 | 559.9 | 547.1 |
| Pulp, paper, and paperboard mills..... | 273.0 | 270.9 | 274.3 | 268.9 | 268.1 | 268.4 | 267.9 | 269.7 | 271.7 | 273.9 | 276.7 | 278.3 | 273.8 | 269.4 | 269.4 |
| Paperboard containers and boxes..... | 150.1 | 146.8 | 148.5 | 146.0 | 144.8 | 145.1 | 145.3 | 147.0 | 149.2 | 153.5 | 154.7 | 154.7 | 153.5 | 149.6 | 149.6 |
| Other paper and allied products..... | 134.5 | 133.5 | 133.9 | 133.1 | 132.9 | 132.0 | 130.9 | 131.3 | 131.0 | 132.5 | 133.5 | 134.7 | 132.6 | 128.1 | 128.1 |
| Printing, publishing, and allied industries..... | 907.2 | 898.6 | 897.1 | 897.0 | 891.6 | 893.8 | 896.7 | 893.7 | 895.0 | 904.2 | 910.2 | 908.2 | 900.9 | 898.3 | 852.2 |
| Newspapers..... | 330.5 | 331.3 | 331.9 | 330.4 | 330.0 | 329.7 | 329.1 | 329.2 | 333.3 | 333.8 | 333.5 | 331.2 | 322.0 | 316.4 | 316.4 |
| Periodicals..... | 63.7 | 64.0 | 64.1 | 64.1 | 64.8 | 64.9 | 65.7 | 66.3 | 66.5 | 66.7 | 66.5 | 66.5 | 62.4 | 61.5 | 61.5 |
| Books..... | 67.3 | 65.4 | 65.4 | 65.1 | 64.9 | 64.6 | 64.1 | 64.1 | 64.5 | 64.5 | 64.4 | 64.4 | 58.0 | 55.0 | 55.0 |
| Commercial printing..... | 229.0 | 228.7 | 229.1 | 227.8 | 228.5 | 228.6 | 229.7 | 230.6 | 230.6 | 233.6 | 233.5 | 233.0 | 224.0 | 220.7 | 220.7 |
| Lithography..... | 69.3 | 69.1 | 68.6 | 68.3 | 69.0 | 69.1 | 68.5 | 67.8 | 69.5 | 70.1 | 69.7 | 69.3 | 66.3 | 65.7 | 65.7 |
| Greeting cards..... | 23.0 | 23.1 | 22.4 | 21.0 | 20.6 | 20.7 | 20.9 | 20.7 | 22.0 | 22.7 | 24.2 | 24.2 | 23.0 | 20.8 | 20.8 |
| Bookbinding and related industries..... | 49.0 | 48.2 | 47.6 | 46.8 | 47.3 | 48.0 | 47.6 | 47.6 | 47.5 | 48.0 | 48.2 | 48.5 | 46.2 | 44.5 | 44.5 |
| Miscellaneous publishing and printing services..... | 66.8 | 67.3 | 67.4 | 68.1 | 68.7 | 69.1 | 69.1 | 68.8 | 69.7 | 70.8 | 70.4 | 67.2 | 68.0 | 68.4 | 68.4 |
| Chemicals and allied products..... | 886.0 | 888.7 | 884.3 | 882.2 | 881.1 | 881.4 | 872.9 | 866.5 | 870.0 | 873.0 | 875.0 | 878.9 | 879.8 | 847.8 | 820.9 |
| Industrial inorganic chemicals..... | 105.5 | 105.5 | 104.6 | 103.5 | 103.9 | 103.7 | 103.6 | 104.5 | 105.0 | 105.1 | 105.2 | 105.8 | 105.5 | 102.5 | 102.2 |
| Industrial organic chemicals..... | 351.5 | 349.4 | 345.7 | 342.2 | 340.4 | 338.7 | 337.8 | 338.5 | 340.6 | 340.9 | 340.9 | 343.2 | 325.6 | 310.8 | 310.8 |
| Drugs and medicines..... | 105.1 | 104.9 | 104.6 | 103.2 | 103.0 | 102.9 | 102.9 | 104.8 | 105.3 | 105.5 | 105.6 | 106.5 | 104.0 | 102.9 | 102.9 |
| Soap, cleaning and polishing preparations..... | 56.2 | 56.0 | 55.6 | 54.9 | 55.0 | 54.2 | 53.8 | 54.0 | 54.2 | 54.1 | 54.3 | 54.4 | 51.0 | 49.3 | 49.3 |
| Paints, pigments, and fillers..... | 78.2 | 78.3 | 77.4 | 76.6 | 75.2 | 74.4 | 74.5 | 75.0 | 75.5 | 75.3 | 77.1 | 77.8 | 75.5 | 73.0 | 73.0 |
| Gum and wood chemicals..... | 7.6 | 7.5 | 7.6 | 7.5 | 7.7 | 7.6 | 7.6 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.8 | 7.7 | 7.8 |
| Fertilizers..... | 33.6 | 32.6 | 35.6 | 44.2 | 47.1 | 43.8 | 37.8 | 36.7 | 35.0 | 33.7 | 34.7 | 33.9 | 36.9 | 35.6 | 35.6 |
| Vegetable and animal oils and fats..... | 34.9 | 34.8 | 35.7 | 36.4 | 37.3 | 37.1 | 38.9 | 39.7 | 40.9 | 41.9 | 42.0 | 39.1 | 40.0 | 38.5 | 38.5 |
| Miscellaneous chemicals..... | 116.1 | 115.3 | 115.4 | 112.6 | 111.8 | 110.5 | 109.6 | 109.1 | 108.9 | 109.8 | 111.4 | 111.3 | 104.6 | 101.0 | 101.0 |
| Products of petroleum and coal..... | 218.6 | 220.9 | 218.4 | 220.7 | 217.6 | 216.2 | 215.6 | 217.2 | 218.2 | 221.6 | 224.8 | 226.2 | 233.4 | 238.2 | 238.2 |
| Petroleum refining..... | 175.8 | 173.6 | 176.0 | 174.6 | 175.2 | 175.0 | 175.1 | 175.6 | 176.7 | 177.5 | 178.7 | 180.3 | 186.2 | 192.1 | 192.1 |
| Coke, other petroleum and coal products..... | 45.1 | 44.8 | 44.7 | 43.6 | 42.4 | 41.2 | 40.5 | 41.6 | 41.5 | 44.1 | 46.1 | 45.9 | 47.2 | 46.1 | 46.1 |
| Rubber products..... | 251.9 | 248.0 | 246.1 | 247.3 | 243.6 | 239.8 | 238.7 | 240.3 | 240.5 | 250.5 | 251.6 | 258.1 | 258.4 | 259.8 | 244.6 |
| Tires and inner tubes..... | 93.9 | 95.5 | 95.1 | 94.0 | 93.6 | 94.3 | 93.1 | 96.6 | 98.1 | 99.8 | 100.4 | 101.6 | 101.6 | 100.8 | 100.8 |
| Rubber footwear..... | 23.9 | 23.6 | 23.8 | 23.5 | 23.0 | 22.7 | 22.5 | 21.9 | 22.1 | 22.2 | 22.6 | 22.4 | 22.0 | 20.9 | 20.9 |
| Other rubber products..... | 130.2 | 127.0 | 128.4 | 126.1 | 122.9 | 121.7 | 124.7 | 128.2 | 130.3 | 130.7 | 135.1 | 134.4 | 136.2 | 122.9 | 122.9 |
| Leather and leather products..... | 362.1 | 366.5 | 357.8 | 362.0 | 352.2 | 352.1 | 359.7 | 363.5 | 360.1 | 359.3 | 362.0 | 360.8 | 364.2 | 372.2 | 357.2 |
| Leather, tanned, curried, and finished..... | 32.9 | 32.3 | 33.2 | 33.0 | 32.5 | 32.3 | 32.5 | 32.5 | 33.6 | 34.1 | 34.2 | 34.4 | 34.4 | 37.1 | 37.9 |
| Industrial leather belting and packing..... | 5.1 | 5.0 | 4.7 | 4.5 | 4.6 | 4.7 | 4.7 | 4.8 | 4.8 | 4.7 | 4.7 | 4.7 | 4.9 | 4.1 | 4.1 |
| Boot and shoe cut stock and findings..... | 20.1 | 20.1 | 20.7 | 19.9 | 19.7 | 20.1 | 20.3 | 20.7 | 19.7 | 19.1 | 18.3 | 18.2 | 19.4 | 18.2 | 18.2 |
| Footwear (except rubber)..... | 244.6 | 241.6 | 243.9 | 237.4 | 236.2 | 242.4 | 245.8 | 244.2 | 242.3 | 240.2 | 238.1 | 242.0 | 248.9 | 238.1 | 238.1 |
| Luggage..... | 15.8 | 15.0 | 15.2 | 14.8 | 14.8 | 13.9 | 13.6 | 13.6 | 13.8 | 15.7 | 16.5 | 16.4 | 15.3 | 15.0 | 15.0 |
| Handbags and small leather goods..... | 31.8 | 29.3 | 28.9 | 27.7 | 30.3 | 32.5 | 33.4 | 31.5 | 31.9 | 33.5 | 33.9 | 32.7 | 31.2 | 29.9 | 29.9 |
| Gloves and miscellaneous leather goods..... | 16.2 | 14.5 | 15.4 | 14.9 | 14.8 | 13.8 | 13.2 | 11.7 | 12.9 | 14.7 | 15.2 | 15.8 | 15.4 | 14.0 | 14.0 |

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

| Industry | 1961 | | | | | | | | | | | | 1960 | | Annual average | |
|--|--------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|--|
| | | | | | | | | | | | | | | | | |
| | Sept. ¹ | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | |
| Transportation and public utilities | 3,840 | 3,836 | 3,842 | 3,818 | 3,773 | 3,756 | 3,749 | 3,759 | 3,763 | 3,843 | 3,868 | 3,889 | 3,907 | 3,902 | 3,903 | |
| Transportation..... | 2,501 | 2,488 | 2,494 | 2,481 | 2,445 | 2,430 | 2,420 | 2,430 | 2,432 | 2,507 | 2,528 | 2,546 | 2,553 | 2,559 | 2,531 | |
| Interstate railroads..... | 810.6 | 808.3 | 831.7 | 819.8 | 814.8 | 812.9 | 816.6 | 817.7 | 849.2 | 852.2 | 859.3 | 876.0 | 876.0 | 930.6 | 903.6 | |
| Class I railroads..... | 733.0 | 731.0 | 725.0 | 713.4 | 708.0 | 705.9 | 708.8 | 711.0 | 734.6 | 743.5 | 759.6 | 766.2 | 815.3 | 815.3 | 840.6 | |
| Local railroads and bus lines..... | 87.6 | 87.4 | 88.4 | 88.5 | 88.5 | 88.5 | 88.6 | 88.7 | 88.8 | 89.3 | 88.2 | 90.8 | 92.3 | 92.3 | 96.4 | |
| Trucking and warehousing..... | 875.0 | 876.2 | 877.1 | 857.3 | 850.4 | 848.4 | 850.7 | 854.1 | 880.9 | 898.2 | 902.2 | 891.7 | 853.2 | 792.5 | 792.5 | |
| Other transportation and services..... | 694.6 | 692.2 | 684.1 | 679.3 | 676.3 | 670.0 | 673.6 | 671.2 | 687.6 | 688.3 | 686.1 | 694.5 | 683.3 | 678.5 | 678.5 | |
| Business, except local..... | 42.7 | 42.8 | 42.2 | 41.0 | 40.2 | 39.4 | 39.2 | 40.4 | 39.7 | 39.9 | 40.0 | 41.1 | 40.4 | 41.7 | 41.7 | |
| Air transportation (common carrier)..... | 155.5 | 154.8 | 151.9 | 150.5 | 149.9 | 148.0 | 149.3 | 149.3 | 150.6 | 150.9 | 151.3 | 152.7 | 148.9 | 140.2 | 140.2 | |
| Pipe-line transportation (except natural gas)..... | 24.2 | 24.3 | 24.2 | 23.6 | 23.5 | 23.5 | 23.5 | 23.6 | 23.6 | 23.7 | 23.6 | 23.6 | 24.1 | 25.1 | 25.8 | |
| Communication..... | 731 | 735 | 736 | 731 | 728 | 730 | 731 | 732 | 733 | 736 | 739 | 741 | 745 | 743 | 771 | |
| Telephone..... | 699.2 | 700.1 | 695.2 | 691.7 | 693.7 | 694.8 | 695.1 | 696.3 | 699.3 | 701.8 | 703.8 | 705.8 | 705.5 | 707.4 | 707.4 | |
| Telegraph..... | 35.3 | 35.5 | 35.6 | 35.4 | 35.3 | 35.3 | 35.4 | 35.6 | 36.0 | 36.0 | 36.0 | 36.5 | 36.4 | 37.4 | 38.3 | |
| Other public utilities..... | 608 | 612 | 606 | 600 | 596 | 598 | 597 | 598 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | |
| Gas and electric utilities..... | 588.7 | 587.7 | 581.6 | 576.4 | 572.2 | 574.3 | 574.4 | 574.4 | 576.9 | 577.6 | 578.7 | 584.7 | 576.8 | 576.8 | 578.5 | |
| Electric light and power utilities..... | 256.7 | 256.3 | 254.7 | 251.9 | 252.0 | 252.1 | 252.1 | 252.5 | 253.3 | 253.6 | 254.2 | 257.2 | 255.9 | 258.3 | 258.3 | |
| Gas utilities..... | 159.9 | 159.8 | 157.0 | 156.0 | 151.9 | 154.6 | 154.6 | 155.0 | 155.3 | 155.5 | 155.5 | 156.9 | 153.3 | 151.5 | 151.5 | |
| Electric light and gas utilities combined..... | 172.1 | 171.6 | 169.9 | 168.5 | 168.3 | 167.6 | 166.8 | 166.9 | 168.3 | 168.5 | 169.0 | 170.6 | 167.4 | 168.7 | 168.7 | |
| Local utilities, not elsewhere classified..... | 24.8 | 24.4 | 24.2 | 23.6 | 23.9 | 23.7 | 23.3 | 23.3 | 23.3 | 23.4 | 23.5 | 23.6 | 24.0 | 23.2 | 22.9 | |
| Wholesale and retail trade | 11,637 | 11,542 | 11,544 | 11,575 | 11,446 | 11,389 | 11,337 | 11,279 | 11,464 | 12,405 | 11,842 | 11,742 | 11,623 | 11,385 | 11,143 | |
| Wholesale trade..... | 3,149 | 3,149 | 3,136 | 3,120 | 3,086 | 3,090 | 3,091 | 3,102 | 3,116 | 3,161 | 3,163 | 3,162 | 3,153 | 3,070 | 3,013 | |
| Wholesalers full-service and limited-function..... | 1,870.5 | 1,860.1 | 1,840.4 | 1,827.7 | 1,827.7 | 1,827.4 | 1,833.7 | 1,843.7 | 1,880.1 | 1,878.6 | 1,879.0 | 1,876.8 | 1,819.2 | 1,782.0 | 1,732.0 | |
| Automotive..... | 142.8 | 142.8 | 141.8 | 140.4 | 140.3 | 139.7 | 139.5 | 139.9 | 140.8 | 140.8 | 141.5 | 142.2 | 135.2 | 136.5 | 136.5 | |
| Groceries, food specialties, beer, wines, and liquors..... | 314.7 | 314.2 | 312.8 | 310.5 | 313.9 | 317.1 | 319.6 | 320.5 | 325.8 | 325.8 | 325.8 | 318.7 | 315.8 | 309.7 | 303.1 | |
| Electrical goods, machinery, hardware, and plumbing equipment..... | 448.2 | 444.0 | 440.1 | 438.7 | 439.8 | 440.0 | 441.5 | 444.4 | 449.0 | 451.0 | 452.2 | 454.7 | 448.0 | 439.2 | 439.2 | |
| Other full-service and limited-function wholesalers..... | 967.8 | 959.1 | 955.7 | 938.1 | 933.7 | 930.6 | 933.2 | 938.9 | 964.5 | 961.0 | 966.6 | 964.4 | 926.3 | 883.2 | 883.2 | |
| Wholesale distributors, other..... | 1,278.2 | 1,276.2 | 1,269.6 | 1,258.2 | 1,262.6 | 1,263.1 | 1,268.2 | 1,271.9 | 1,280.8 | 1,284.0 | 1,285.0 | 1,275.7 | 1,250.7 | 1,250.7 | 1,251.4 | |
| Retail trade..... | 8,488 | 8,393 | 8,408 | 8,455 | 8,360 | 8,299 | 8,246 | 8,177 | 8,348 | 9,244 | 8,679 | 8,580 | 8,612 | 8,315 | 8,128 | |
| General merchandise stores..... | 1,514.9 | 1,455.9 | 1,442.3 | 1,407.0 | 1,456.9 | 1,443.1 | 1,433.7 | 1,391.7 | 1,478.2 | 2,021.9 | 1,654.6 | 1,553.5 | 1,504.1 | 1,453.5 | 1,433.8 | |
| Department stores and general mail-order houses..... | 925.2 | 923.2 | 934.0 | 923.7 | 921.0 | 920.3 | 906.9 | 954.6 | 1,308.8 | 1,070.9 | 994.0 | 951.8 | 953.4 | 925.1 | 925.1 | |
| Other general merchandise stores..... | 530.7 | 519.1 | 533.0 | 533.2 | 522.1 | 515.4 | 494.8 | 521.6 | 712.1 | 589.3 | 559.5 | 552.3 | 530.1 | 506.7 | 506.7 | |
| Food and liquor stores..... | 1,635.4 | 1,620.3 | 1,640.4 | 1,643.3 | 1,638.2 | 1,631.9 | 1,631.6 | 1,641.3 | 1,640.8 | 1,682.7 | 1,659.3 | 1,632.1 | 1,640.7 | 1,613.6 | 1,598.8 | |
| Grocery, meat, and vegetable markets..... | 1,190.0 | 1,199.2 | 1,196.2 | 1,198.8 | 1,196.2 | 1,198.0 | 1,206.0 | 1,208.4 | 1,228.9 | 1,210.8 | 1,217.3 | 1,210.8 | 1,195.2 | 1,175.8 | 1,149.4 | |
| Dairy product stores and dealers..... | 228.3 | 228.9 | 226.4 | 226.7 | 219.4 | 214.8 | 213.3 | 213.6 | 216.7 | 216.4 | 217.5 | 223.7 | 222.7 | 222.7 | 222.7 | |
| Other food and liquor stores..... | 211.0 | 212.3 | 217.7 | 218.7 | 216.3 | 217.9 | 222.0 | 219.4 | 227.1 | 225.6 | 223.8 | 221.8 | 215.6 | 222.0 | 222.0 | |
| Automotive and accessories dealers..... | 804.7 | 804.4 | 801.9 | 793.2 | 789.9 | 784.0 | 786.9 | 793.7 | 827.9 | 813.5 | 813.4 | 814.7 | 791.0 | 764.0 | 764.0 | |
| Apparel and accessories stores..... | 610.1 | 590.4 | 592.4 | 621.2 | 614.0 | 603.6 | 608.3 | 576.3 | 614.0 | 649.7 | 633.5 | 619.7 | 608.0 | 592.1 | 592.1 | |
| Other retail trade..... | 3,928.5 | 3,928.6 | 3,928.5 | 3,921.8 | 3,857.4 | 3,830.3 | 3,786.1 | 3,780.4 | 3,823.3 | 3,961.7 | 3,901.4 | 3,927.1 | 3,933.0 | 3,820.4 | 3,738.4 | |
| Furniture and appliance stores..... | 349.5 | 348.8 | 348.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | 343.6 | |
| Drug stores..... | 403.7 | 400.9 | 399.7 | 395.6 | 391.7 | 390.3 | 389.9 | 389.4 | 418.5 | 406.0 | 404.7 | 407.8 | 393.8 | 390.2 | 390.2 | |
| Finance, insurance, and real estate | 2,567 | 2,591 | 2,585 | 2,556 | 2,529 | 2,520 | 2,507 | 2,494 | 2,490 | 2,504 | 2,499 | 2,501 | 2,515 | 2,425 | 2,374 | |
| Banks and trust companies..... | 703.2 | 699.8 | 694.0 | 684.5 | 684.9 | 685.1 | 684.0 | 681.7 | 684.9 | 683.2 | 680.6 | 680.6 | 680.9 | 638.4 | 613.3 | |
| Security dealers and exchanges..... | 117.4 | 117.2 | 115.4 | 112.1 | 108.8 | 105.6 | 103.3 | 101.5 | 101.5 | 101.4 | 101.6 | 102.0 | 94.5 | 84.6 | 84.6 | |
| Insurance carriers and agents..... | 975.7 | 972.5 | 962.7 | 957.0 | 955.6 | 955.6 | 953.2 | 946.9 | 949.0 | 945.4 | 941.4 | 946.2 | 904.0 | 895.0 | 895.0 | |
| Other finance agencies and real estate..... | 768.1 | 765.3 | 757.0 | 774.5 | 769.2 | 760.4 | 754.6 | 760.1 | 768.3 | 769.3 | 776.9 | 785.6 | 787.8 | 779.8 | 779.8 | |
| Service and miscellaneous | 6,749 | 6,741 | 6,761 | 6,795 | 6,753 | 6,679 | 6,566 | 6,527 | 6,518 | 6,612 | 6,605 | 6,608 | 6,698 | 6,525 | 6,395 | |
| Hotels and lodging places..... | 575.5 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | 575.0 | |
| Personal services..... | 305.8 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | 307.7 | |
| Laundries..... | 175.3 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | 175.9 | |
| Cleaning and dyeing plants..... | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | |
| Motion pictures..... | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | 188.9 | |
| Government | 8,816 | 8,468 | 8,470 | 8,732 | 8,732 | 8,705 | 8,674 | 8,608 | 8,917 | 8,636 | 8,586 | 8,474 | 8,127 | 7,593 | 7,593 | |
| Federal ³ | 2,252 | 2,264 | 2,258 | 2,241 | 2,205 | 2,198 | 2,186 | 2,179 | 2,173 | 2,471 | 2,182 | 2,182 | 2,185 | 2,197 | 2,191 | |
| Executive..... | 2,234.9 | 2,229.0 | 2,229.0 | 2,212.2 | 2,176.8 | 2,170.1 | 2,158.5 | 2,151.2 | 2,145.7 | 2,443.5 | 2,154.4 | 2,154.1 | 2,157.6 | 2,169.4 | 2,164.2 | |
| Department of Defense..... | 924.7 | 919.2 | 917.9 | 913.2 | 911.0 | 909.0 | 908.2 | 907.0 | 906.6 | 907.9 | 906.4 | 906.4 | 910.8 | 911.3 | 909.3 | |
| Post Office Department..... | 852.8 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | 854.9 | |
| Other agencies..... | 725.0 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | 724.9 | |
| Legislative..... | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | |
| Judicial..... | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | |
| State and local ⁴ | 6,564 | 6,204 | 6,242 | 6,520 | 6,547 | 6,547 | 6,519 | 6,495 | 6,435 | 6,446 | 6,454 | 6,404 | 6,289 | 5,930 | 5,402 | |
| State..... | 1,590.0 | 1,596.6 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | 1,616.8 | |
| Local..... | 4,974.0 | 4,607.4 | 4,625.4 | 4,903.2 | 4,930.2 | 4,930.2 | 4,882.1 | 4,878.1 | 4,818.2 | 4,829.2 | 4,837.6 | 4,787.6 | 4,704.4 | 4,313.2 | 4,221.1 | |
| Education..... | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | 2,617.9 | |
| Other..... | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | 3,356.9 | |

¹ Beginning with the August 1958 issue, figures for 1956-58 differ from those previously published because of the adjustment of the employment estimates to 1st quarter 1957 benchmark levels indicated by data from government social insurance programs. Statistics from 1957 forward are subject to revision when new benchmarks become available.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. Therefore, persons who worked in more than 1 establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

² Preliminary.

³ Data relate to civilian employees who worked on, or received pay for, the last day of the month.

⁴ State and local government data exclude, as nominal employees, elected officials of small local units and paid volunteer firemen.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except those for the Federal Government, which are prepared by the U.S. Civil Service Commission, and that for Class I railroads, which is prepared by the U.S. Interstate Commerce Commission.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry¹
(In thousands)

| Industry | 1961 | | | | | | | | | | | | 1960 | | | | Annual average | |
|--|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|--|----------------|--|
| | Sept. ³ | Aug. ³ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | | | |
| Mining | 492 | 489 | 498 | 488 | 481 | 480 | 479 | 487 | 498 | 503 | 512 | 516 | 512 | 512 | 572 | | | |
| Metal | 70.4 | 72.5 | 72.6 | 71.4 | 69.8 | 70.1 | 69.9 | 73.3 | 74.0 | 73.6 | 78.4 | 77.3 | 65.1 | 76.5 | | | | |
| Iron | 21.6 | 23.9 | 23.5 | 23.2 | 22.4 | 22.2 | 22.2 | 26.9 | 24.9 | 24.4 | 27.7 | 28.2 | 22.7 | 26.1 | | | | |
| Copper | 26.4 | 26.0 | 26.4 | 25.8 | 25.0 | 25.0 | 25.0 | 26.6 | 26.6 | 26.6 | 26.4 | 26.3 | 18.0 | 23.4 | | | | |
| Lead and zinc | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.2 | 8.2 | 8.4 | 8.1 | 7.9 | 7.6 | 8.1 | 10.0 | 10.5 | | | | |
| Anthracite | 7.6 | 7.6 | 7.6 | 7.6 | 8.1 | 7.2 | 8.7 | 8.7 | 8.7 | 9.4 | 10.4 | 10.2 | 14.6 | 18.5 | | | | |
| Bituminous coal | 115.7 | 109.2 | 120.4 | 119.3 | 118.9 | 122.4 | 124.7 | 123.9 | 126.4 | 128.7 | 131.0 | 130.6 | 149.2 | 173.6 | | | | |
| Crude-petroleum and natural-gas production | 203.8 | 205.1 | 202.8 | 197.6 | 195.6 | 195.6 | 194.2 | 196.0 | 198.7 | 196.4 | 196.7 | 200.0 | 216.2 | 211.1 | | | | |
| Petroleum and natural-gas production (except contract services) | 97.7 | 98.1 | 97.8 | 95.5 | 95.4 | 95.8 | 98.1 | 97.5 | 98.6 | 98.5 | 99.0 | 101.9 | 106.1 | 112.9 | | | | |
| Nonmetallic mining and quarrying | 94.5 | 95.0 | 94.3 | 92.1 | 88.8 | 84.6 | 81.8 | 84.0 | 89.7 | 94.7 | 97.5 | 97.6 | 92.5 | 91.9 | | | | |
| Contract construction | 2,728 | 2,656 | 2,599 | 2,374 | 2,204 | 2,010 | 1,864 | 1,964 | 2,147 | 2,433 | 2,585 | 2,545 | 2,372 | 2,278 | | | | |
| Nonbuilding construction | 566 | 562 | 563 | 496 | 429 | 357 | 320 | 342 | 388 | 457 | 539 | 554 | 508 | 497 | | | | |
| Highway and street construction | 305.2 | 301.2 | 297.9 | 253.8 | 204.2 | 185.3 | 134.8 | 148.1 | 176.2 | 245.8 | 281.2 | 288.4 | 248.4 | 231.8 | | | | |
| Other nonbuilding construction | 261.0 | 260.3 | 264.6 | 241.7 | 224.5 | 198.2 | 184.9 | 193.9 | 212.2 | 241.4 | 258.1 | 267.2 | 200.5 | 205.1 | | | | |
| Building construction | 2,162 | 2,094 | 2,036 | 1,878 | 1,775 | 1,653 | 1,544 | 1,642 | 1,759 | 1,946 | 2,046 | 2,091 | 1,890 | 1,781 | | | | |
| General contractors | 757.1 | 733.2 | 707.7 | 644.9 | 600.5 | 552.1 | 512.5 | 533.8 | 599.5 | 673.0 | 706.0 | 732.9 | 662.4 | 658.1 | | | | |
| Special-trade contractors | 1,405.0 | 1,361.0 | 1,327.9 | 1,232.6 | 1,174.1 | 1,101.1 | 1,031.7 | 1,088.4 | 1,159.2 | 1,272.8 | 1,340.4 | 1,358.3 | 1,203.2 | 1,122.6 | | | | |
| Plumbing and heating | 261.3 | 257.6 | 253.3 | 245.8 | 241.5 | 237.6 | 233.8 | 242.3 | 249.2 | 255.6 | 262.0 | 268.7 | 252.8 | 247.0 | | | | |
| Painting and decorating | 273.5 | 252.3 | 232.4 | 206.8 | 191.9 | 167.5 | 146.2 | 154.4 | 174.5 | 200.1 | 212.5 | 222.6 | 181.7 | 153.8 | | | | |
| Electrical work | 160.3 | 155.2 | 147.0 | 136.6 | 135.5 | 134.1 | 135.0 | 140.6 | 148.1 | 153.9 | 158.6 | 161.9 | 138.3 | 138.3 | | | | |
| Other special-trade contractors | 709.9 | 695.9 | 695.2 | 643.4 | 605.2 | 561.9 | 516.1 | 551.2 | 587.4 | 663.2 | 707.3 | 708.1 | 630.4 | 584.1 | | | | |
| Manufacturing | 12,175 | 12,027 | 11,786 | 11,860 | 11,643 | 11,463 | 11,418 | 11,395 | 11,502 | 11,637 | 12,037 | 12,399 | 12,237 | 11,538 | | | | |
| Durable goods | 6,780 | 6,697 | 6,639 | 6,706 | 6,895 | 6,429 | 6,363 | 6,359 | 6,459 | 6,613 | 6,796 | 6,863 | 6,949 | 6,955 | | | | |
| Nondurable goods | 5,389 | 5,360 | 5,147 | 5,154 | 5,048 | 5,034 | 5,055 | 5,036 | 5,046 | 5,132 | 5,251 | 5,363 | 5,450 | 5,282 | | | | |
| Durable goods | | | | | | | | | | | | | | | | | | |
| Ordnance and accessories | 76.2 | 75.1 | 73.9 | 74.0 | 73.9 | 72.5 | 73.4 | 73.1 | 73.2 | 73.6 | 73.8 | 72.2 | 73.8 | 72.9 | 68.4 | | | |
| Lumber and wood products (except furniture) | 583.2 | 590.8 | 587.4 | 593.0 | 580.6 | 519.3 | 498.2 | 495.6 | 507.5 | 518.2 | 548.8 | 580.6 | 598.4 | 591.1 | 556.8 | | | |
| Logging camps and contractors | 118.7 | 123.0 | 125.3 | 96.4 | 80.0 | 72.2 | 73.0 | 80.6 | 82.3 | 94.8 | 110.6 | 114.8 | 92.3 | 80.1 | | | | |
| Sawmills and planing mills | 274.3 | 269.1 | 270.4 | 262.3 | 252.5 | 244.4 | 248.3 | 247.0 | 251.8 | 264.5 | 276.4 | 285.0 | 291.8 | 283.6 | | | | |
| Millwork, plywood, and prefabricated structural wood products | 114.4 | 111.2 | 111.6 | 107.5 | 103.9 | 99.3 | 97.5 | 98.7 | 101.7 | 103.2 | 107.2 | 110.5 | 117.7 | 106.5 | | | | |
| Wooden containers | 35.5 | 36.4 | 37.6 | 37.3 | 35.9 | 35.3 | 35.1 | 35.0 | 35.8 | 36.8 | 37.8 | 38.5 | 40.2 | 40.6 | | | | |
| Miscellaneous wood products | 47.9 | 47.7 | 48.1 | 47.1 | 47.0 | 47.0 | 46.7 | 46.4 | 46.6 | 47.5 | 48.6 | 49.6 | 49.4 | 48.0 | | | | |
| Furniture and fixtures | 324.5 | 319.7 | 308.3 | 308.4 | 304.3 | 305.0 | 302.5 | 303.1 | 302.7 | 309.5 | 320.5 | 327.0 | 328.2 | 321.2 | 297.3 | | | |
| Household furniture | 237.8 | 230.0 | 228.9 | 227.0 | 229.3 | 226.1 | 228.5 | 230.4 | 229.0 | 237.6 | 241.9 | 241.5 | 240.8 | 230.1 | | | | |
| Office, public building, and professional furniture | 37.5 | 35.5 | 36.5 | 35.5 | 35.6 | 35.5 | 35.3 | 35.7 | 36.5 | 37.5 | 38.8 | 39.6 | 35.9 | 34.3 | | | | |
| Partitions, shelving, lockers, and fixtures | 26.2 | 25.1 | 25.2 | 24.4 | 23.4 | 24.6 | 24.5 | 24.6 | 25.4 | 26.4 | 27.4 | 28.0 | 28.6 | 28.6 | | | | |
| Screens, blinds, and miscellaneous furniture and fixtures | 18.2 | 17.7 | 17.8 | 17.4 | 16.7 | 16.3 | 16.8 | 17.9 | 18.6 | 19.0 | 19.9 | 19.1 | 18.9 | 17.4 | | | | |
| Stone, clay, and glass products | 434.9 | 436.9 | 431.1 | 428.4 | 430.1 | 410.4 | 402.1 | 395.6 | 400.8 | 416.1 | 431.1 | 441.7 | 449.2 | 449.1 | 417.8 | | | |
| Flat glass | 25.3 | 24.2 | 23.1 | 23.3 | 22.2 | 23.2 | 23.2 | 25.3 | 26.0 | 25.6 | 26.4 | 26.1 | 28.7 | 23.5 | | | | |
| Glass and glassware, pressed or blown | 91.2 | 89.4 | 89.0 | 88.2 | 86.5 | 86.3 | 84.9 | 82.7 | 85.5 | 87.8 | 89.6 | 92.4 | 87.7 | 80.5 | | | | |
| Glass products made of purchased glass | 13.4 | 13.2 | 12.8 | 12.7 | 12.6 | 12.9 | 13.2 | 13.0 | 14.2 | 14.3 | 14.2 | 14.0 | 15.0 | 13.3 | | | | |
| Cement, hydraulic | 32.2 | 32.9 | 32.8 | 31.6 | 30.7 | 28.3 | 27.4 | 28.9 | 30.1 | 31.5 | 33.1 | 34.2 | 34.4 | 34.6 | | | | |
| Structural clay products | 60.6 | 60.7 | 60.0 | 58.5 | 57.2 | 54.6 | 52.1 | 53.7 | 57.3 | 60.6 | 62.9 | 64.0 | 65.5 | 63.4 | | | | |
| Pottery and related products | 37.2 | 35.5 | 36.6 | 36.5 | 36.5 | 36.4 | 36.5 | 36.6 | 36.9 | 38.8 | 39.9 | 40.3 | 41.3 | 37.6 | | | | |
| Concrete, gypsum, and plaster products | 93.9 | 92.8 | 91.8 | 88.7 | 86.2 | 83.5 | 81.9 | 82.9 | 85.0 | 89.0 | 92.6 | 93.1 | 94.3 | 88.9 | | | | |
| Cut-stone and stone products | 15.4 | 15.5 | 15.4 | 15.5 | 15.2 | 14.8 | 14.6 | 14.5 | 15.3 | 15.7 | 16.0 | 16.2 | 15.6 | 15.7 | | | | |
| Miscellaneous nonmetallic mineral products | 67.7 | 66.9 | 66.9 | 65.1 | 63.3 | 62.1 | 61.8 | 63.2 | 64.3 | 66.9 | 67.7 | 68.9 | 69.6 | 62.3 | | | | |
| Primary metal industries | 924.7 | 910.7 | 899.2 | 897.7 | 877.4 | 844.9 | 832.7 | 829.0 | 837.8 | 851.2 | 870.3 | 891.4 | 908.0 | 916.4 | 891.0 | | | |
| Blast furnaces, steel works, and rolling mills | 440.7 | 435.4 | 429.4 | 417.7 | 398.4 | 387.2 | 380.6 | 377.4 | 381.4 | 394.6 | 409.2 | 417.6 | 416.6 | 436.8 | | | | |
| Iron and steel foundries | 177.4 | 175.3 | 175.8 | 172.9 | 167.7 | 167.8 | 168.8 | 173.5 | 177.8 | 180.6 | 182.8 | 185.7 | 192.2 | 187.4 | | | | |
| Primary smelting and refining of nonferrous metals | 41.9 | 41.9 | 42.2 | 41.0 | 40.7 | 41.0 | 41.7 | 43.0 | 43.7 | 43.7 | 44.2 | 44.8 | 40.0 | 43.3 | | | | |
| Secondary smelting and refining of nonferrous metals | 8.9 | 8.7 | 8.6 | 8.3 | 8.2 | 8.1 | 8.0 | 8.8 | 8.0 | 8.7 | 8.9 | 9.1 | 9.1 | 8.2 | | | | |
| Rolling, drawing, and alloying of nonferrous metals | 85.2 | 82.8 | 84.7 | 83.4 | 81.5 | 80.4 | 80.3 | 80.9 | 82.5 | 82.6 | 83.9 | 84.0 | 89.2 | 80.6 | | | | |
| Nonferrous foundries | 45.6 | 45.1 | 46.6 | 45.6 | 44.0 | 44.0 | 44.7 | 46.0 | 47.3 | 47.9 | 49.3 | 49.3 | 53.3 | 46.4 | | | | |
| Miscellaneous primary metal industries | 111.0 | 110.0 | 110.4 | 108.5 | 104.4 | 104.2 | 104.9 | 108.5 | 109.9 | 112.2 | 113.1 | 114.5 | 116.0 | 108.4 | | | | |
| Fabricated metal products (except ordnance, machinery, and transportation equipment) | 815.8 | 808.4 | 783.3 | 800.8 | 788.0 | 761.5 | 750.2 | 754.5 | 770.6 | 794.3 | 816.8 | 838.5 | 835.0 | 831.6 | 795.6 | | | |
| Tin cans and other tinware | 53.7 | 52.5 | 51.6 | 51.1 | 50.2 | 48.7 | 47.4 | 46.6 | 47.3 | 47.8 | 49.8 | 53.3 | 51.9 | 50.6 | | | | |
| Cutlery, handtools, and hardware | 100.9 | 96.6 | 100.4 | 99.4 | 92.7 | 95.1 | 96.6 | 96.6 | 102.2 | 103.9 | 103.9 | 102.5 | 108.2 | 100.1 | | | | |
| Heating apparatus (except electric) and plumbers' supplies | 84.4 | 81.7 | 82.7 | 82.0 | 79.3 | 78.6 | 77.3 | 79.1 | 80.0 | 81.5 | 85.1 | 86.0 | 80.5 | 83.3 | | | | |
| Fabricated structural metal products | 207.0 | 203.6 | 202.7 | 195.8 | 193.0 | 189.5 | 190.1 | 192.9 | 201.0 | 206.1 | 210.9 | 211.7 | 203.4 | 220.0 | | | | |
| Metal stamping, coating, and engraving | 176.9 | 169.6 | 181.6 | 181.1 | 171.9 | 165.1 | 168.1 | 176.2 | 184.7 | 193.2 | 196.6 | 193.7 | 187.6 | 190.4 | | | | |
| Lighting fixtures | 37.5 | 35.4 | 36.3 | 34.8 | 34.7 | 34.7 | 35.2 | 35.4 | 37.3 | 38.4 | 38.7 | 38.6 | 38.5 | 34.2 | | | | |
| Fabricated wire products | 42.6 | 41.1 | 42.1 | 41.8 | 39.9 | 39.0 | 39.7 | 40.2 | 41.3 | 42.4 | 43.9 | 44.2 | 45.4 | 41.7 | | | | |
| Miscellaneous fabricated metal products | 105.4 | 103.8 | 103.4 | 102.0 | 99.8 | 99.5 | 100.1 | 100.6 | 100.5 | 103.5 | 105.0 | 105.0 | 108.9 | 96.8 | | | | |

See footnotes at end of table.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry¹—Continued

[In thousands]

| Industry | 1961 | | | | | | | | | 1960 | | | | Annual average | |
|--|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
| | Sept. ¹ | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Durable goods—Continued</i> | | | | | | | | | | | | | | | |
| Machinery (except electrical)..... | 1,009.6 | 1,060.8 | 1,067.8 | 1,078.7 | 1,081.7 | 1,080.7 | 1,076.3 | 1,076.9 | 1,074.6 | 1,080.7 | 1,085.3 | 1,086.6 | 1,104.4 | 1,134.1 | 1,085.3 |
| Engine and turbines..... | 57.2 | 56.1 | 57.0 | 58.8 | 59.1 | 58.0 | 58.0 | 58.8 | 59.7 | 59.5 | 58.2 | 61.1 | 65.9 | 60.7 | 60.7 |
| Agricultural machinery and tractors..... | 90.8 | 97.4 | 100.6 | 107.4 | 110.2 | 108.6 | 105.7 | 101.0 | 97.9 | 93.5 | 94.1 | 93.9 | 112.4 | 94.7 | 94.7 |
| Construction and mining machinery..... | 78.2 | 78.2 | 78.1 | 77.4 | 76.4 | 75.5 | 75.3 | 74.3 | 74.2 | 75.1 | 78.5 | 81.0 | 89.6 | 82.4 | 82.4 |
| Metalworking machinery..... | 172.7 | 172.2 | 175.0 | 171.8 | 177.0 | 177.4 | 177.6 | 176.6 | 177.7 | 176.0 | 179.0 | 181.0 | 178.6 | 162.1 | 162.1 |
| Special-industry machinery (except metalworking machinery)..... | 118.2 | 117.8 | 118.9 | 118.7 | 116.9 | 117.8 | 119.0 | 119.4 | 120.9 | 121.7 | 122.3 | 122.6 | 114.9 | 108.5 | 108.5 |
| General industrial machinery..... | 132.2 | 132.3 | 133.2 | 132.0 | 130.2 | 130.1 | 131.0 | 133.2 | 135.6 | 137.9 | 139.9 | 142.7 | 141.9 | 138.1 | 138.1 |
| Office and store machines and devices..... | 92.6 | 92.2 | 92.4 | 91.9 | 91.5 | 90.6 | 91.5 | 91.6 | 92.2 | 92.6 | 92.6 | 92.8 | 89.7 | 84.0 | 84.0 |
| Service-industry and household machines..... | 123.6 | 129.0 | 131.1 | 134.7 | 133.7 | 133.8 | 132.9 | 130.4 | 129.1 | 130.1 | 123.1 | 130.0 | 138.1 | 123.2 | 123.2 |
| Miscellaneous machinery parts..... | 195.3 | 192.6 | 192.4 | 189.0 | 185.7 | 184.8 | 185.9 | 189.3 | 193.4 | 198.9 | 198.7 | 199.8 | 206.0 | 185.9 | 185.9 |
| Electrical machinery..... | 881.1 | 858.7 | 837.3 | 844.4 | 836.5 | 826.5 | 830.2 | 835.2 | 842.1 | 843.6 | 808.8 | 830.1 | 876.9 | 830.7 | 770.1 |
| Electrical generating, transmission, distribution, and industrial apparatus..... | 274.5 | 272.0 | 272.4 | 269.3 | 266.8 | 266.0 | 266.8 | 268.6 | 269.9 | 270.2 | 263.1 | 278.6 | 278.7 | 247.6 | 247.6 |
| Electrical appliances..... | 28.5 | 27.2 | 28.3 | 27.7 | 27.4 | 27.2 | 26.1 | 25.7 | 27.2 | 27.2 | 28.3 | 30.2 | 28.2 | 25.4 | 25.4 |
| Insulated wire..... | 23.3 | 20.3 | 21.7 | 19.9 | 21.3 | 21.5 | 21.6 | 21.7 | 22.1 | 22.4 | 22.2 | 21.6 | 21.6 | 19.3 | 19.3 |
| Electrical equipment for vehicles..... | 49.8 | 49.0 | 50.8 | 50.3 | 47.3 | 48.8 | 50.3 | 53.1 | 55.6 | 56.2 | 56.1 | 55.6 | 54.4 | 47.0 | 47.0 |
| Electric lamps..... | 22.1 | 22.1 | 21.9 | 22.2 | 22.4 | 22.6 | 23.0 | 23.4 | 23.9 | 24.3 | 24.3 | 20.0 | 24.4 | 23.9 | 22.5 |
| Communication equipment..... | 425.3 | 412.4 | 414.9 | 413.2 | 407.7 | 410.1 | 413.8 | 415.5 | 410.1 | 426.2 | 422.8 | 430.1 | 401.6 | 385.4 | 385.4 |
| Miscellaneous electrical products..... | 35.2 | 34.3 | 34.4 | 33.9 | 33.6 | 34.0 | 33.8 | 34.1 | 34.8 | 36.2 | 34.6 | 36.5 | 36.3 | 32.7 | 32.7 |
| Transportation equipment..... | 1,028.8 | 972.7 | 1,047.6 | 1,064.2 | 1,059.2 | 1,018.4 | 1,012.6 | 1,012.4 | 1,067.9 | 1,124.6 | 1,146.6 | 1,140.3 | 1,135.1 | 1,189.5 | 1,124.0 |
| Motor vehicles and equipment..... | 461.3 | 541.0 | 552.2 | 544.1 | 496.5 | 489.1 | 491.7 | 541.9 | 595.8 | 610.4 | 613.9 | 597.4 | 574.2 | 480.0 | 480.0 |
| Aircraft and parts..... | 352.2 | 355.5 | 367.5 | 359.9 | 363.6 | 367.1 | 366.0 | 367.2 | 368.8 | 372.8 | 365.7 | 367.0 | 451.1 | 479.8 | 479.8 |
| Aircraft..... | 197.8 | 197.0 | 197.3 | 199.5 | 203.0 | 203.5 | 203.5 | 206.2 | 207.7 | 212.0 | 212.0 | 211.5 | 298.1 | 291.5 | 291.5 |
| Aircraft engines and parts..... | 77.9 | 81.9 | 82.7 | 83.0 | 83.5 | 83.3 | 82.4 | 81.2 | 80.7 | 79.6 | 73.9 | 77.8 | 86.5 | 89.9 | 89.9 |
| Aircraft propellers and parts..... | 6.7 | 6.8 | 7.0 | 7.1 | 7.3 | 7.3 | 7.2 | 6.8 | 6.7 | 6.6 | 6.5 | 6.6 | 9.1 | 12.2 | 12.2 |
| Other aircraft parts and equipment..... | 69.8 | 69.8 | 70.5 | 70.3 | 70.5 | 71.3 | 72.9 | 73.0 | 73.7 | 74.1 | 72.4 | 71.1 | 87.4 | 88.7 | 88.7 |
| Ship and boat building and repairing..... | 118.8 | 112.8 | 114.8 | 117.2 | 117.2 | 118.2 | 115.9 | 117.3 | 116.6 | 117.3 | 118.8 | 118.8 | 118.8 | 121.4 | 121.4 |
| Shipbuilding and repairing..... | 103.7 | 99.0 | 98.8 | 99.8 | 99.3 | 100.9 | 99.0 | 100.4 | 101.2 | 100.7 | 102.9 | 103.0 | 99.9 | 105.1 | 105.1 |
| Boatbuilding and repairing..... | 13.1 | 13.8 | 16.0 | 17.4 | 17.9 | 17.3 | 16.6 | 16.6 | 15.3 | 16.6 | 15.9 | 15.8 | 18.9 | 16.3 | 16.3 |
| Railroad equipment..... | 31.6 | 30.6 | 31.9 | 30.6 | 30.9 | 31.3 | 32.4 | 35.9 | 37.1 | 39.5 | 42.6 | 43.3 | 37.1 | 36.1 | 36.1 |
| Other transportation equipment..... | 7.8 | 7.7 | 7.8 | 7.4 | 7.2 | 6.9 | 6.7 | 6.9 | 6.4 | 7.1 | 8.3 | 8.6 | 8.8 | 7.3 | 7.3 |
| Instruments and related products..... | 221.1 | 218.2 | 212.9 | 214.5 | 212.2 | 210.0 | 210.7 | 211.4 | 215.3 | 218.2 | 222.6 | 222.9 | 225.4 | 222.3 | 205.3 |
| Laboratory, scientific and engineering instruments..... | 32.0 | 31.3 | 32.9 | 33.6 | 34.2 | 35.0 | 35.1 | 35.8 | 35.9 | 36.1 | 36.0 | 36.2 | 35.1 | 31.8 | 31.8 |
| Mechanical measuring and controlling instruments..... | 64.0 | 63.0 | 63.6 | 63.0 | 62.1 | 61.6 | 62.2 | 62.7 | 62.7 | 62.6 | 63.3 | 64.2 | 62.4 | 55.8 | 55.8 |
| Optical instruments and lenses..... | 12.0 | 11.7 | 11.9 | 11.8 | 11.6 | 11.9 | 11.8 | 12.1 | 12.4 | 12.6 | 12.6 | 12.4 | 10.7 | 9.4 | 9.4 |
| Surgical, medical, and dental instruments..... | 30.2 | 29.7 | 26.8 | 29.6 | 29.7 | 29.8 | 29.7 | 29.8 | 29.7 | 29.8 | 30.0 | 29.8 | 28.7 | 27.8 | 27.8 |
| Ophthalmic goods..... | 19.6 | 19.3 | 19.4 | 19.2 | 18.8 | 18.5 | 18.7 | 18.9 | 19.4 | 20.2 | 20.1 | 20.6 | 20.6 | 18.4 | 18.4 |
| Photographic apparatus..... | 36.8 | 36.2 | 36.3 | 35.6 | 35.6 | 35.7 | 36.1 | 36.9 | 37.7 | 39.1 | 39.6 | 39.6 | 39.3 | 39.7 | 39.7 |
| Watches and clocks..... | 23.6 | 21.7 | 20.6 | 19.4 | 18.1 | 18.3 | 17.7 | 19.2 | 20.3 | 21.7 | 21.3 | 22.6 | 25.5 | 22.9 | 22.9 |
| Miscellaneous manufacturing industries..... | 426.2 | 414.5 | 390.0 | 401.4 | 390.6 | 379.4 | 374.5 | 372.6 | 363.5 | 382.7 | 405.8 | 418.0 | 417.5 | 386.6 | 361.0 |
| Jewelry, silverware, and plated ware..... | 35.7 | 33.7 | 34.5 | 34.6 | 34.7 | 34.7 | 34.7 | 35.5 | 35.4 | 36.4 | 37.3 | 38.2 | 37.5 | 36.1 | 34.5 |
| Musical instruments and parts..... | 13.0 | 12.3 | 14.3 | 14.3 | 14.3 | 14.4 | 14.3 | 14.3 | 15.3 | 15.6 | 15.6 | 15.6 | 15.0 | 15.0 | 15.0 |
| Toys and sporting goods..... | 90.6 | 82.3 | 95.0 | 80.9 | 74.8 | 70.0 | 68.5 | 59.8 | 67.6 | 82.1 | 89.6 | 89.1 | 70.7 | 67.8 | 67.8 |
| Pens, pencils, other office supplies..... | 24.9 | 23.8 | 23.7 | 23.0 | 22.8 | 23.0 | 23.2 | 23.3 | 23.8 | 24.3 | 24.9 | 24.6 | 22.8 | 22.8 | 22.8 |
| Costume jewelry, buttons, notions..... | 45.9 | 42.4 | 43.9 | 42.1 | 41.4 | 42.8 | 43.3 | 42.7 | 45.1 | 46.8 | 48.9 | 48.8 | 46.8 | 46.8 | 46.8 |
| Fabricated plastics products..... | 79.1 | 74.8 | 75.3 | 73.6 | 71.4 | 69.7 | 70.1 | 6.97 | 71.6 | 74.3 | 74.0 | 75.1 | 72.9 | 64.8 | 64.8 |
| Other manufacturing industries..... | 125.3 | 120.7 | 124.7 | 122.1 | 120.0 | 119.9 | 119.7 | 118.3 | 122.9 | 125.4 | 126.8 | 126.8 | 120.3 | 111.9 | 111.9 |
| <i>Nondurable goods</i> | | | | | | | | | | | | | | | |
| Food and kindred products..... | 1,166.2 | 1,146.5 | 1,054.4 | 1,008.1 | 960.8 | 941.6 | 931.8 | 925.1 | 943.2 | 984.4 | 1,035.7 | 1,112.3 | 1,170.9 | 1,028.2 | 1,035.3 |
| Meat products..... | 242.2 | 242.5 | 242.4 | 235.7 | 231.1 | 229.7 | 230.2 | 237.1 | 242.4 | 248.4 | 248.8 | 248.3 | 240.6 | 243.5 | 243.5 |
| Dairy products..... | 67.6 | 68.7 | 67.3 | 61.8 | 61.8 | 59.8 | 58.2 | 58.3 | 58.3 | 58.4 | 62.8 | 65.6 | 65.5 | 60.7 | 60.7 |
| Canning and preserving..... | 310.6 | 221.7 | 180.4 | 154.6 | 155.4 | 147.5 | 140.2 | 141.4 | 156.6 | 188.1 | 254.1 | 324.8 | 180.2 | 186.6 | 186.6 |
| Grain-mill products..... | 78.4 | 78.2 | 78.8 | 74.8 | 73.7 | 74.0 | 72.7 | 74.7 | 74.3 | 74.3 | 76.9 | 76.2 | 77.9 | 79.5 | 79.5 |
| Bakery products..... | 163.1 | 164.2 | 163.6 | 159.2 | 167.5 | 168.2 | 158.3 | 158.4 | 162.0 | 163.1 | 165.0 | 163.8 | 162.1 | 164.9 | 164.9 |
| Sugar..... | 21.2 | 19.8 | 19.0 | 19.2 | 20.7 | 18.8 | 19.5 | 20.2 | 32.0 | 36.7 | 33.6 | 22.4 | 25.3 | 25.9 | 25.9 |
| Confectionery and related products..... | 59.6 | 51.5 | 55.2 | 51.7 | 51.3 | 55.2 | 56.9 | 57.3 | 61.0 | 63.6 | 64.5 | 62.4 | 59.4 | 61.6 | 61.6 |
| Beverages..... | 112.4 | 115.4 | 111.1 | 105.1 | 104.5 | 103.1 | 101.3 | 102.1 | 107.9 | 110.9 | 114.3 | 114.1 | 111.6 | 112.4 | 112.4 |
| Miscellaneous food products..... | 91.4 | 92.4 | 92.3 | 87.2 | 85.7 | 85.5 | 86.8 | 87.7 | 88.4 | 90.3 | 92.3 | 93.3 | 93.6 | 94.3 | 94.3 |
| Tobacco manufactures..... | 97.8 | 79.4 | 61.9 | 64.1 | 63.3 | 64.4 | 67.9 | 72.1 | 75.4 | 78.3 | 82.0 | 94.3 | 97.2 | 78.9 | 80.1 |
| Cigarettes..... | 32.8 | 32.3 | 32.7 | 31.9 | 31.9 | 32.0 | 32.2 | 32.4 | 32.4 | 32.4 | 32.6 | 32.7 | 33.1 | 32.2 | 31.5 |
| Cigars..... | 20.3 | 19.1 | 21.0 | 21.1 | 21.0 | 21.6 | 22.3 | 22.2 | 23.4 | 23.9 | 24.0 | 23.8 | 25.4 | 27.4 | 27.4 |
| Tobacco and snuff..... | 4.8 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 5.0 | 5.1 | 5.0 | 5.0 | 5.0 | 5.4 | 5.4 |
| Tobacco stemming and redrying..... | 21.5 | 5.7 | 5.5 | 5.4 | 6.6 | 9.4 | 12.7 | 15.9 | 17.5 | 20.4 | 22.6 | 25.3 | 15.8 | 15.8 | 15.8 |

See footnotes at end of table.

TABLE A-3. Production of nonsupervisory workers in nonagricultural establishments, by industry¹—Continued

| Industry | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|---|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Sept. ¹ | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | |
| | | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | | |
| Nondurable goods—Continued | | | | | | | | | | | | | | | | |
| Textile-mill products..... | 830.5 | 835.8 | 820.6 | 832.0 | 823.0 | 814.0 | 807.1 | 806.2 | 806.6 | 819.0 | 832.3 | 839.9 | 849.8 | 873.9 | 830.8 | |
| Scouring and combing plants..... | | 8.0 | 4.9 | 5.0 | 4.7 | 4.5 | 4.4 | 4.2 | 4.3 | 4.3 | 4.4 | 4.5 | 4.7 | 5.0 | 4.7 | |
| Yarn and thread mills..... | | 94.6 | 92.2 | 92.9 | 91.6 | 90.3 | 89.6 | 89.4 | 89.1 | 91.0 | 91.8 | 92.9 | 94.3 | 101.6 | 99.7 | |
| Broad-woven fabric mills..... | | 342.4 | 340.4 | 343.7 | 341.4 | 340.9 | 341.0 | 343.2 | 344.9 | 347.5 | 349.4 | 351.4 | 355.8 | 370.6 | 372.4 | |
| Narrow fabrics and smallwares..... | | 24.7 | 24.2 | 24.6 | 24.5 | 24.2 | 23.9 | 24.0 | 24.0 | 24.2 | 24.5 | 24.7 | 25.5 | 25.9 | 23.9 | |
| Knitting mills..... | | 205.1 | 199.2 | 203.9 | 199.4 | 195.8 | 190.8 | 186.4 | 183.3 | 188.5 | 197.5 | 201.4 | 203.1 | 199.7 | 186.8 | |
| Dyeing and finishing textiles..... | | 70.5 | 75.2 | 75.8 | 74.9 | 74.5 | 73.8 | 73.5 | 73.8 | 74.7 | 75.2 | 75.4 | 76.4 | 76.6 | 73.7 | |
| Carpets, rugs, other floor coverings..... | | 34.0 | 32.9 | 34.2 | 34.5 | 33.7 | 34.7 | 35.1 | 35.2 | 36.8 | 35.9 | 35.9 | 36.8 | 38.9 | 36.7 | |
| Hats (except cloth and millinery)..... | | 8.7 | 8.2 | 8.6 | 8.0 | 7.0 | 7.5 | 8.1 | 8.1 | 8.2 | 7.9 | 7.8 | 8.2 | 8.9 | 9.0 | |
| Miscellaneous textile goods..... | | 44.8 | 43.4 | 44.4 | 44.0 | 43.1 | 41.4 | 42.3 | 43.9 | 44.8 | 45.7 | 45.9 | 46.0 | 46.9 | 43.0 | |
| Apparel and other finished textile products..... | 1,069.1 | 1,088.3 | 1,025.5 | 1,047.4 | 1,034.8 | 1,041.2 | 1,073.6 | 1,063.1 | 1,037.7 | 1,051.5 | 1,079.3 | 1,078.8 | 1,094.8 | 1,080.0 | 1,027.0 | |
| Men's and boys' suits and coats..... | | 100.5 | 95.0 | 99.6 | 96.1 | 94.1 | 98.9 | 100.6 | 100.8 | 101.1 | 101.9 | 102.9 | 103.5 | 99.8 | 95.0 | |
| Men's and boys' furnishings and work clothing..... | | 323.0 | 310.5 | 315.7 | 310.7 | 308.5 | 309.2 | 307.7 | 301.1 | 306.7 | 311.9 | 317.4 | 325.3 | 308.5 | 283.9 | |
| Women's outerwear..... | | 299.0 | 278.9 | 233.3 | 285.3 | 297.3 | 313.0 | 304.0 | 293.6 | 294.6 | 302.8 | 291.8 | 299.3 | 308.0 | 302.7 | |
| Women's, children's undergarments..... | | 103.3 | 95.9 | 100.1 | 100.1 | 100.9 | 101.4 | 100.7 | 99.0 | 102.4 | 105.7 | 106.1 | 105.6 | 106.2 | 101.9 | |
| Millinery..... | | 18.2 | 14.6 | 12.6 | 10.5 | 13.7 | 21.4 | 21.3 | 17.1 | 15.1 | 14.3 | 16.7 | 16.8 | 16.3 | 15.7 | |
| Children's outerwear..... | | 66.7 | 65.9 | 66.0 | 63.7 | 59.9 | 63.6 | 66.6 | 63.9 | 61.7 | 63.6 | 63.9 | 64.3 | 66.3 | 65.1 | |
| Fur goods..... | | 5.8 | 5.9 | 5.9 | 5.5 | 4.4 | 4.5 | 4.5 | 4.9 | 5.9 | 6.7 | 6.6 | 6.4 | 7.1 | 8.2 | |
| Miscellaneous apparel and accessories..... | | 55.3 | 49.5 | 51.7 | 50.7 | 51.0 | 52.1 | 51.3 | 48.5 | 51.1 | 55.0 | 55.0 | 55.3 | 54.4 | 50.9 | |
| Other fabricated textile products..... | | 116.5 | 109.3 | 112.3 | 112.2 | 111.4 | 109.5 | 107.4 | 108.8 | 112.9 | 117.4 | 118.4 | 118.0 | 113.7 | 103.6 | |
| Paper and allied products..... | 443.7 | 442.7 | 436.5 | 442.6 | 434.7 | 432.9 | 432.4 | 431.5 | 434.2 | 437.2 | 444.8 | 448.8 | 452.1 | 448.6 | 439.3 | |
| Pulp, paper, and paperboard mills..... | | 219.8 | 218.1 | 221.9 | 217.0 | 216.3 | 216.2 | 216.2 | 217.4 | 218.7 | 221.3 | 223.1 | 225.4 | 223.1 | 220.7 | |
| Paperboard containers and boxes..... | | 119.9 | 116.4 | 118.4 | 115.9 | 114.7 | 116.0 | 115.1 | 116.4 | 118.9 | 122.7 | 124.0 | 123.8 | 122.9 | 119.6 | |
| Other paper and allied products..... | | 103.0 | 102.0 | 102.3 | 101.8 | 101.9 | 101.1 | 100.2 | 100.4 | 99.6 | 100.8 | 101.7 | 102.9 | 102.6 | 99.0 | |
| Printing, publishing, and allied industries..... | 577.0 | 569.9 | 569.0 | 570.0 | 566.7 | 568.4 | 571.4 | 568.3 | 571.1 | 578.8 | 584.4 | 584.6 | 578.4 | 557.5 | 545.4 | |
| Newspapers..... | | 162.3 | 162.7 | 164.3 | 164.5 | 164.0 | 163.5 | 162.1 | 163.6 | 166.6 | 167.2 | 166.6 | 165.3 | 161.0 | 157.2 | |
| Periodicals..... | | 25.4 | 26.0 | 26.0 | 26.7 | 27.3 | 27.5 | 27.5 | 28.2 | 28.0 | 28.5 | 28.6 | 28.5 | 26.6 | 25.5 | |
| Books..... | | 40.7 | 38.8 | 39.5 | 39.0 | 38.7 | 38.7 | 38.5 | 38.8 | 39.0 | 38.8 | 39.1 | 39.3 | 35.8 | 33.7 | |
| Commercial printing..... | | 184.1 | 183.8 | 184.0 | 182.5 | 182.8 | 185.1 | 184.0 | 184.7 | 186.6 | 187.6 | 187.9 | 187.1 | 180.2 | 177.5 | |
| Lithographing..... | | 32.8 | 32.5 | 32.1 | 31.8 | 32.5 | 32.5 | 32.0 | 31.2 | 33.0 | 33.3 | 33.9 | 32.7 | 30.1 | 49.7 | |
| Greeting cards..... | | 16.2 | 16.2 | 16.1 | 14.3 | 14.0 | 14.0 | 14.0 | 14.1 | 15.3 | 17.0 | 17.6 | 16.6 | 15.0 | 14.2 | |
| Bookbinding and related industries..... | | 38.6 | 38.0 | 37.2 | 36.5 | 36.9 | 37.5 | 37.1 | 36.8 | 36.6 | 37.4 | 37.8 | 37.8 | 36.3 | 35.0 | |
| Miscellaneous publishing and printing services..... | | 49.8 | 51.0 | 50.8 | 51.4 | 52.2 | 52.6 | 53.1 | 53.7 | 53.7 | 54.6 | 54.2 | 51.1 | 52.8 | 52.6 | |
| Chemicals and allied products..... | 535.9 | 536.0 | 531.6 | 534.2 | 535.4 | 537.2 | 531.6 | 525.4 | 527.9 | 530.8 | 533.4 | 538.1 | 537.4 | 530.9 | 512.2 | |
| Industrial inorganic chemicals..... | | 69.2 | 69.2 | 68.8 | 67.6 | 68.1 | 68.1 | 67.8 | 68.7 | 69.3 | 69.4 | 69.4 | 69.4 | 68.4 | 67.3 | |
| Industrial organic chemicals..... | | 211.4 | 209.5 | 208.1 | 205.9 | 204.0 | 203.3 | 202.7 | 203.7 | 205.8 | 206.0 | 205.8 | 207.1 | 203.3 | 191.8 | |
| Drugs and medicines..... | | 56.2 | 56.5 | 56.4 | 55.1 | 55.0 | 55.0 | 55.3 | 55.6 | 56.0 | 56.2 | 56.5 | 57.2 | 57.1 | 57.6 | |
| Soap, cleaning and polishing preparations..... | | 33.7 | 33.3 | 33.1 | 32.4 | 32.7 | 31.9 | 31.6 | 31.9 | 32.0 | 31.9 | 32.4 | 32.5 | 30.3 | 30.1 | |
| Paints, pigments, and fillers..... | | 46.5 | 46.3 | 46.0 | 45.1 | 44.1 | 43.0 | 43.1 | 43.7 | 44.0 | 44.7 | 45.5 | 46.1 | 45.4 | 43.7 | |
| Gum and wood chemicals..... | | 6.1 | 6.0 | 6.2 | 6.1 | 6.2 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 | 6.3 | 6.3 | 6.3 | 6.4 | |
| Fertilizers..... | | 23.0 | 22.0 | 25.0 | 33.6 | 36.6 | 33.6 | 27.7 | 26.6 | 25.0 | 23.6 | 24.6 | 23.7 | 26.9 | 26.1 | |
| Vegetable and animal oils and fats..... | | 22.0 | 21.9 | 22.8 | 23.4 | 24.6 | 24.9 | 26.5 | 27.0 | 28.0 | 29.0 | 29.3 | 26.6 | 27.2 | 26.1 | |
| Miscellaneous chemicals..... | | 67.9 | 66.9 | 67.8 | 66.0 | 65.9 | 65.6 | 64.5 | 64.6 | 65.0 | 66.4 | 68.3 | 68.8 | 66.0 | 63.1 | |
| Products of petroleum and coal..... | 145.4 | 146.5 | 143.9 | 145.3 | 143.7 | 143.1 | 142.1 | 142.0 | 143.8 | 145.1 | 147.2 | 149.7 | 150.5 | 155.4 | 157.0 | |
| Petroleum refining..... | | 111.8 | 109.3 | 110.8 | 110.4 | 110.9 | 111.1 | 111.7 | 112.4 | 112.9 | 113.2 | 114.0 | 115.1 | 118.4 | 121.2 | |
| Coke, other petroleum and coal products..... | | 34.7 | 34.6 | 34.5 | 33.3 | 32.2 | 31.0 | 30.3 | 31.4 | 32.2 | 34.0 | 35.7 | 35.4 | 37.0 | 35.8 | |
| Rubber products..... | 192.2 | 188.8 | 187.2 | 187.9 | 184.3 | 180.5 | 179.7 | 180.8 | 187.5 | 190.6 | 192.6 | 197.9 | 197.5 | 199.4 | 198.0 | |
| Tires and inner tubes..... | | 67.8 | 69.4 | 68.6 | 67.6 | 67.3 | 68.1 | 68.9 | 70.4 | 71.6 | 73.1 | 73.8 | 74.5 | 74.6 | 74.7 | |
| Rubber footwear..... | | 20.1 | 19.7 | 20.1 | 19.9 | 19.3 | 19.1 | 18.9 | 18.3 | 18.4 | 17.4 | 18.5 | 18.5 | 17.9 | 16.7 | |
| Other rubber products..... | | 100.9 | 98.1 | 99.2 | 96.8 | 93.9 | 92.7 | 96.0 | 98.8 | 100.7 | 102.1 | 105.6 | 104.8 | 106.9 | 98.6 | |
| Leather and leather products..... | 321.3 | 325.8 | 316.7 | 320.6 | 311.1 | 310.6 | 317.6 | 311.6 | 318.2 | 316.6 | 319.3 | 318.1 | 321.2 | 331.6 | 317.7 | |
| Leather: tanned, curried, and finished..... | | 28.7 | 28.1 | 29.0 | 28.8 | 28.4 | 28.1 | 27.4 | 29.4 | 29.8 | 30.0 | 30.0 | 30.1 | 32.8 | 33.7 | |
| Industrial leather belting and packing..... | | 4.0 | 3.8 | 3.6 | 3.5 | 3.5 | 3.6 | 3.7 | 3.7 | 3.8 | 3.6 | 3.6 | 3.6 | 3.8 | 3.1 | |
| Boot and shoe cut stock and findings..... | | 17.9 | 17.9 | 18.4 | 17.6 | 17.5 | 17.9 | 18.1 | 18.5 | 17.4 | 16.8 | 16.1 | 16.0 | 17.4 | 16.2 | |
| Footwear (except rubber)..... | | 219.6 | 216.2 | 218.6 | 212.0 | 210.4 | 216.4 | 219.7 | 218.1 | 215.6 | 213.6 | 211.4 | 215.4 | 223.7 | 213.8 | |
| Luggage..... | | 13.4 | 12.7 | 12.8 | 12.5 | 12.1 | 11.4 | 11.3 | 11.3 | 11.5 | 13.4 | 14.3 | 14.1 | 13.0 | 12.5 | |
| Handbags and small leather goods..... | | 27.9 | 25.3 | 25.0 | 23.7 | 26.2 | 28.3 | 30.1 | 27.3 | 27.6 | 29.2 | 29.5 | 28.2 | 27.3 | 26.1 | |
| Gloves and miscellaneous leather goods..... | | 14.3 | 12.7 | 13.6 | 13.0 | 12.6 | 11.9 | 11.3 | 9.9 | 11.1 | 12.7 | 13.2 | 13.8 | 12.6 | 12.3 | |

See footnotes at end of table.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry¹—Continued

(In thousands) -

| Industry | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|--|--------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Sept. ² | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 | |
| Transportation and public utilities: | | | | | | | | | | | | | | | | |
| Other public utilities..... | | 540 | 540 | 534 | 528 | 525 | 528 | 526 | 528 | 531 | 531 | 533 | 538 | 534 | 537 | |
| Gas and electric utilities..... | 519.1 | 518.7 | 513.0 | 508.3 | 504.9 | 507.2 | 506.1 | 507.9 | 510.1 | 510.3 | 511.8 | 517.0 | 513.0 | 516.4 | 516.4 | |
| Electric light and power utilities..... | 219.7 | 219.6 | 218.0 | 215.6 | 216.0 | 216.0 | 216.0 | 216.6 | 217.3 | 217.3 | 218.1 | 220.7 | 221.8 | 223.2 | 223.2 | |
| Gas utilities..... | 142.8 | 142.8 | 140.0 | 139.2 | 135.6 | 138.0 | 138.0 | 138.9 | 139.3 | 139.3 | 139.4 | 140.7 | 138.0 | 137.5 | 137.5 | |
| Electric light and gas utilities combined..... | 156.6 | 156.3 | 155.0 | 153.5 | 153.3 | 153.2 | 152.1 | 152.4 | 153.5 | 153.7 | 154.3 | 155.6 | 153.2 | 155.7 | 155.7 | |
| Local utilities, not elsewhere classified..... | 20.8 | 20.8 | 20.6 | 20.1 | 20.2 | 20.5 | 20.1 | 20.2 | 20.5 | 20.6 | 21.0 | 21.4 | 20.6 | 20.4 | 20.4 | |
| Wholesale and retail trade: | | | | | | | | | | | | | | | | |
| Wholesale trade..... | 2,681 | 2,670 | 2,659 | 2,628 | 2,637 | 2,638 | 2,649 | 2,662 | 2,710 | 2,712 | 2,715 | 2,704 | 2,651 | 2,622 | | |
| Wholesalers, full-service and limited-function..... | 1,611.7 | 1,601.7 | 1,594.1 | 1,571.6 | 1,574.7 | 1,575.1 | 1,581.9 | 1,591.7 | 1,631.3 | 1,629.0 | 1,631.6 | 1,628.9 | 1,588.8 | 1,536.7 | | |
| Automotive..... | 122.5 | 122.5 | 121.4 | 119.9 | 120.0 | 119.5 | 119.4 | 119.8 | 120.8 | 121.0 | 122.1 | 122.9 | 117.5 | 110.0 | | |
| Groceries, food specialties, beer, wines, and liquors..... | 277.3 | 277.2 | 275.6 | 273.9 | 277.8 | 280.7 | 283.1 | 283.9 | 289.6 | 289.0 | 283.0 | 279.9 | 276.9 | 273.2 | | |
| Electrical goods, machinery, hardware, and plumbing equipment..... | 379.3 | 378.7 | 375.4 | 373.3 | 374.7 | 375.3 | 377.1 | 379.0 | 383.0 | 386.0 | 387.5 | 390.1 | 388.1 | 382.1 | | |
| Other full-service and limited-function wholesalers..... | 832.6 | 823.3 | 821.7 | 804.5 | 802.2 | 799.6 | 802.3 | 809.0 | 837.9 | 833.0 | 839.0 | 836.0 | 806.3 | 772.4 | | |
| Wholesale distributors, other..... | 1,063.4 | 1,068.6 | 1,064.6 | 1,056.4 | 1,062.4 | 1,063.1 | 1,067.1 | 1,070.6 | 1,078.9 | 1,082.6 | 1,083.6 | 1,074.7 | 1,061.8 | 1,084.9 | | |
| Retail trade: | | | | | | | | | | | | | | | | |
| General merchandise stores..... | 1,344.6 | 1,332.8 | 1,353.1 | 1,343.2 | 1,330.1 | 1,320.1 | 1,282.8 | 1,367.4 | 1,912.4 | 1,546.3 | 1,443.9 | 1,395.2 | 1,383.6 | 1,334.7 | | |
| Department stores and general mail-order houses..... | 848.4 | 847.5 | 857.4 | 847.9 | 844.6 | 845.7 | 820.6 | 879.2 | 1,232.9 | 995.9 | 918.5 | 876.6 | 882.6 | 855.9 | | |
| Other general merchandise stores..... | 496.2 | 485.3 | 495.7 | 495.3 | 485.5 | 483.4 | 462.2 | 488.2 | 679.5 | 550.4 | 525.4 | 518.6 | 501.0 | 478.8 | | |
| Food and liquor stores..... | 1,481.9 | 1,491.2 | 1,493.7 | 1,489.2 | 1,484.6 | 1,485.2 | 1,491.2 | 1,495.1 | 1,538.3 | 1,515.5 | 1,510.9 | 1,497.7 | 1,488.3 | 1,483.2 | | |
| Grocery, meat, and vegetable markets..... | 1,112.7 | 1,122.5 | 1,122.5 | 1,120.8 | 1,119.7 | 1,121.0 | 1,126.4 | 1,129.9 | 1,154.0 | 1,143.0 | 1,138.2 | 1,122.3 | 1,102.0 | 1,078.7 | | |
| Dairy-product stores and dealers..... | 190.9 | 191.3 | 189.7 | 184.3 | 183.0 | 179.2 | 178.3 | 178.3 | 181.8 | 181.4 | 182.7 | 189.4 | 190.1 | 196.5 | | |
| Other food and liquor stores..... | 178.3 | 177.4 | 181.5 | 184.1 | 181.9 | 185.0 | 186.5 | 186.9 | 202.5 | 191.1 | 190.0 | 187.0 | 193.2 | 206.0 | | |
| Automotive and accessories dealers..... | 690.0 | 703.2 | 701.5 | 694.0 | 692.2 | 686.3 | 689.3 | 696.1 | 730.0 | 715.8 | 715.7 | 717.4 | 699.8 | 677.2 | | |
| Apparel and accessories stores..... | 520.1 | 531.4 | 557.9 | 553.8 | 544.4 | 549.9 | 518.6 | 555.5 | 690.1 | 691.6 | 675.4 | 662.5 | 554.7 | 542.0 | | |
| Other retail trade (except eating and drinking places)..... | 2,131.3 | 2,127.4 | 2,114.3 | 2,079.0 | 2,070.1 | 2,057.0 | 2,059.5 | 2,054.4 | 2,194.8 | 2,131.2 | 2,131.6 | 2,134.6 | 2,090.3 | 2,056.7 | | |
| Furniture and appliance stores..... | 349.8 | 348.7 | 346.4 | 343.3 | 345.1 | 348.0 | 347.9 | 354.0 | 374.8 | 365.8 | 364.6 | 358.0 | 356.5 | 354.8 | | |
| Drug stores..... | 381.5 | 378.0 | 376.9 | 373.3 | 369.8 | 368.8 | 367.6 | 377.0 | 408.9 | 384.1 | 386.1 | 385.7 | 387.7 | 387.0 | | |

¹ For comparability of data with those published in issues prior to August 1958 and coverage of the series, see footnote 1, table A-2.

Production and related workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, ware-

housing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., power-plant), and recordkeeping and other services closely associated with the aforementioned production operations.

² Preliminary.

TABLE A-4. Unemployment insurance and employment service programs, selected operations ¹

[All items except average benefit amounts are in thousands]

| Item | 1961 | | | | | | | | 1960 | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. |
| Employment service: ² | | | | | | | | | | | | | |
| New applications for work..... | 845 | 818 | 1,018 | 873 | 808 | 895 | 949 | 1,065 | 820 | 881 | 858 | 811 | 839 |
| Nonfarm placements..... | 603 | 501 | 551 | 520 | 440 | 417 | 342 | 368 | 578 | 430 | 517 | 584 | 556 |
| State unemployment insurance programs: ³ | | | | | | | | | | | | | |
| Initial claims ⁴ | 1,248 | 1,501 | 1,229 | 1,368 | 1,468 | 1,709 | 1,919 | 2,381 | 2,175 | 1,744 | 1,393 | 1,206 | 1,407 |
| Insured unemployment ⁵ (average weekly volume)..... | 1,744 | 1,958 | 1,901 | 2,328 | 2,779 | 3,168 | 3,364 | 3,266 | 2,639 | 2,039 | 1,678 | 1,568 | 1,657 |
| Rate of insured unemployment ⁶ | 4.3 | 4.8 | 4.9 | 5.7 | 6.8 | 7.8 | 8.4 | 8.1 | 6.6 | 5.1 | 4.2 | 4.0 | 4.2 |
| Weeks of unemployment compensated..... | 7,310 | 6,962 | 8,273 | 9,835 | 10,656 | 13,334 | 11,935 | 11,978 | 9,105 | 7,054 | 8,561 | 6,238 | 6,435 |
| Average weekly benefit amount for total unemployment..... | \$33.36 | \$32.91 | \$32.92 | \$33.46 | \$34.18 | \$34.37 | \$34.45 | \$34.34 | \$34.18 | \$34.01 | \$33.73 | \$33.54 | \$32.99 |
| Total benefits paid..... | \$237,168 | \$223,978 | \$264,448 | \$320,089 | \$362,639 | \$461,543 | \$399,264 | \$397,609 | \$300,204 | \$231,114 | \$189,891 | \$201,805 | \$206,276 |
| Unemployment compensation for ex-service-men: ⁷ | | | | | | | | | | | | | |
| Initial claims ⁸ | 30 | 29 | 26 | 26 | 29 | 35 | 33 | 36 | 36 | 33 | 29 | 27 | 32 |
| Insured unemployment ⁹ (average weekly volume)..... | 58 | 60 | 61 | 71 | 83 | 91 | 91 | 98 | 71 | 59 | 50 | 49 | 52 |
| Weeks of unemployment compensated..... | 263 | 236 | 291 | 326 | 380 | 370 | 355 | 355 | 279 | 227 | 190 | 210 | 223 |
| Total benefits paid..... | \$8,174 | \$7,271 | \$8,984 | \$10,190 | \$11,090 | \$11,618 | \$11,002 | \$11,017 | \$8,597 | \$7,016 | \$5,670 | \$6,445 | \$6,860 |
| Unemployment compensation for Federal civilian employees: ¹⁰ | | | | | | | | | | | | | |
| Initial claims ¹¹ | 11 | 15 | 12 | 12 | 13 | 12 | 13 | 19 | 14 | 14 | 14 | 12 | 13 |
| Insured unemployment ¹² (average weekly volume)..... | 31 | 32 | 31 | 33 | 36 | 40 | 41 | 40 | 35 | 33 | 30 | 28 | 30 |
| Weeks of unemployment compensated..... | 139 | 115 | 142 | 148 | 167 | 160 | 162 | 164 | 142 | 131 | 115 | 120 | 130 |
| Total benefits paid..... | \$4,878 | \$3,932 | \$4,913 | \$5,090 | \$6,228 | \$5,504 | \$5,534 | \$5,605 | \$4,817 | \$4,464 | \$3,934 | \$4,059 | \$4,418 |
| Railroad unemployment insurance: | | | | | | | | | | | | | |
| Applications ¹³ | 26 | 100 | 9 | 6 | 6 | 10 | 13 | 28 | 21 | 23 | 20 | 99 | 81 |
| Insured unemployment (average weekly volume)..... | 74 | 83 | 83 | 100 | 107 | 106 | 113 | 123 | 103 | 95 | 82 | 107 | 65 |
| Number of payments ¹⁴ | 200 | 164 | 224 | 253 | 263 | 270 | 242 | 266 | 226 | 194 | 162 | 227 | 182 |
| Average amount of benefit payment ¹⁵ | \$80.61 | \$77.88 | \$78.43 | \$80.01 | \$79.57 | \$81.60 | \$80.99 | \$82.69 | \$82.46 | \$81.62 | \$77.80 | \$80.90 | \$78.72 |
| Total benefits paid ¹⁶ | \$16,173 | \$12,713 | \$17,551 | \$20,485 | \$16,273 | \$22,274 | \$19,706 | \$22,208 | \$18,793 | \$16,036 | \$15,222 | \$18,532 | \$12,136 |
| All programs: ¹⁷ | | | | | | | | | | | | | |
| Insured unemployment ¹⁸ | 1,907 | 2,136 | 2,175 | 2,543 | 3,040 | 3,403 | 3,638 | 3,515 | 2,847 | 2,226 | 1,839 | 1,781 | 1,804 |

¹ Data relate to the United States (including Alaska and Hawaii), except where otherwise indicated.² Includes Guam, Puerto Rico, and the Virgin Islands.³ Includes data for Puerto Rico, beginning January 1961 when the Commonwealth's program became part of the Federal-State UI system.⁴ Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transitional claims.⁵ Includes interstate claims for Puerto Rico and the Virgin Islands for the entire period.⁶ Number of workers reporting the completion of at least 1 week of unemployment.⁷ The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.⁸ Excludes data on claims and payments made jointly with other programs.⁹ Includes Puerto Rico and the Virgin Islands.¹⁰ Excludes data on claims and payments made jointly with State programs.¹¹ An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.¹² Payments are for unemployment in 14-day registration periods.¹³ The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.¹⁴ Adjusted for recovery of overpayments and settlement of underpayments.¹⁵ Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act.¹⁶ SOURCE: U.S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance, which is prepared by the U.S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B-1. Labor turnover rates, by major industry group¹

(Per 100 employees)

| Major industry group | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|--------------------------------|------|------|-----|------|------|------|------|------|------|------|-------|------|----------------|------|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1960 | 1959 |
| | Accessions: Total ³ | | | | | | | | | | | | | | |
| Manufacturing..... | 4.1 | 3.3 | 4.2 | 3.7 | 3.4 | 3.3 | 2.7 | 3.1 | 1.9 | 2.3 | 2.8 | 3.8 | 3.8 | 3.6 | 3.0 |
| Durable goods..... | 4.6 | 3.4 | 4.2 | 3.8 | 3.8 | 3.7 | 2.8 | 3.4 | 2.0 | 2.3 | 3.0 | 4.2 | 4.1 | 3.8 | 3.2 |
| Ordinance and accessories..... | 3.6 | 2.6 | 3.4 | 2.0 | 2.2 | 1.7 | 2.2 | 2.3 | 2.1 | 2.4 | 3.9 | 3.3 | 2.7 | 2.8 | 2.8 |
| Lumber and wood products..... | 4.2 | 4.2 | 9.2 | 6.4 | 5.9 | 4.2 | 3.3 | 4.0 | 2.0 | 1.8 | 3.4 | 4.1 | 4.4 | 4.7 | 4.1 |
| Furniture and fixtures..... | 5.2 | 4.8 | 4.0 | 3.0 | 2.8 | 2.7 | 2.6 | 2.8 | 1.9 | 2.1 | 2.7 | 3.5 | 3.3 | 4.0 | 3.4 |
| Stone, clay, and glass products..... | 2.9 | 2.6 | 4.4 | 3.6 | 3.6 | 3.8 | 3.0 | 2.4 | 1.3 | 1.5 | 2.2 | 2.9 | 3.2 | 3.1 | 2.9 |
| Primary metal industries..... | 3.1 | 2.9 | 3.8 | 4.6 | 4.1 | 3.1 | 2.8 | 3.4 | 2.1 | 2.1 | 2.3 | 2.9 | 3.0 | 2.9 | 2.8 |
| Fabricated metal products..... | 4.3 | 4.8 | 4.4 | 4.6 | 5.0 | 4.4 | 3.2 | 4.2 | 2.3 | 2.5 | 3.3 | 4.3 | 3.5 | 4.4 | 3.6 |
| Machinery (except electrical)..... | 2.6 | 2.4 | 2.9 | 2.7 | 2.5 | 2.6 | 2.2 | 2.7 | 1.7 | 1.9 | 2.1 | 2.6 | 2.5 | 3.2 | 2.8 |
| Electrical machinery..... | 3.4 | 2.8 | 3.8 | 3.0 | 2.4 | 2.5 | 2.6 | 3.2 | 1.8 | 2.3 | 2.8 | 3.5 | 3.4 | 3.6 | 2.6 |
| Transportation equipment..... | 2.6 | 3.6 | 4.1 | 4.1 | 5.1 | 5.9 | 3.2 | 3.9 | 2.4 | 3.3 | 4.3 | 3.2 | 6.3 | 4.5 | 4.0 |
| Instruments and related products..... | 2.6 | 1.9 | 3.0 | 2.1 | 1.6 | 1.6 | 1.5 | 1.6 | 1.3 | 1.6 | 1.5 | 1.8 | 2.9 | 2.5 | 1.8 |
| Miscellaneous manufacturing..... | 5.6 | 5.3 | 5.6 | 5.2 | 4.5 | 5.1 | 4.3 | 5.0 | 2.2 | 2.8 | 3.7 | 5.5 | 5.6 | 4.5 | 4.0 |
| Nondurable goods ⁴ | 3.2 | 3.1 | 4.0 | 3.4 | 2.9 | 2.5 | 2.5 | 2.5 | 1.8 | 2.2 | 2.5 | 3.1 | 3.3 | 3.1 | 2.7 |
| Food and kindred products..... | 3.9 | 4.2 | 6.0 | 4.7 | 3.7 | 3.5 | 3.3 | 3.5 | 2.9 | 3.2 | 3.8 | 4.5 | 4.0 | 4.1 | 3.5 |
| Tobacco manufactures..... | 2.0 | 1.8 | 1.2 | 2.0 | .9 | .9 | 1.2 | 1.4 | .8 | .9 | 1.4 | 1.8 | 2.6 | 1.8 | 1.6 |
| Textile-mill products..... | 3.8 | 3.2 | 3.6 | 3.5 | 3.1 | 3.1 | 2.5 | 2.5 | 1.6 | 2.2 | 2.5 | 2.8 | 3.5 | 3.2 | 3.0 |
| Apparel and other finished textile products..... | 3.4 | 3.7 | 3.5 | 3.3 | 3.1 | 2.7 | 3.5 | 3.1 | 1.8 | 2.2 | 2.7 | 3.9 | 4.2 | 4.2 | 3.4 |
| Paper and allied products..... | 2.6 | 2.6 | 3.9 | 2.5 | 2.3 | 2.0 | 1.6 | 2.0 | 1.2 | 1.5 | 1.9 | 2.6 | 2.4 | 2.6 | 2.1 |
| Chemicals and allied products..... | 1.7 | 1.7 | 3.0 | 1.9 | 1.8 | 1.3 | 1.2 | 1.2 | 1.0 | 1.0 | 1.3 | 1.8 | 1.8 | 1.8 | 1.3 |
| Products of petroleum and coal..... | .8 | 1.0 | 2.2 | 1.5 | 1.2 | .5 | .8 | .8 | .4 | .5 | .7 | .9 | 1.1 | 1.0 | .7 |
| Rubber products..... | 3.7 | 2.4 | 3.5 | 3.8 | 3.7 | 2.6 | 1.9 | 2.6 | 1.4 | 1.6 | 2.2 | 2.9 | 3.6 | 2.7 | 2.6 |
| Leather and leather products..... | 4.2 | 4.6 | 5.4 | 5.3 | 3.6 | 3.5 | 3.6 | 4.0 | 3.7 | 4.4 | 3.9 | 3.7 | 4.2 | 4.1 | 3.3 |
| Nonmanufacturing..... | 1.7 | 2.7 | 4.4 | 3.2 | 3.3 | 2.1 | 2.7 | 4.3 | 1.7 | 1.5 | 2.1 | 3.4 | 2.7 | 2.7 | 2.6 |
| Metal mining..... | 1.5 | 1.5 | 1.0 | .4 | 1.2 | 1.7 | 2.8 | 2.7 | 3.6 | 1.4 | 1.6 | 1.5 | 2.4 | 1.6 | 1.6 |
| Anthracite mining..... | 1.9 | 2.1 | 1.2 | 2.0 | .8 | 1.6 | 1.2 | 1.5 | 1.0 | 1.2 | 1.0 | 1.2 | 2.7 | 2.3 | 1.2 |
| Bituminous coal mining..... | | | | | | | | | | | | | | | |
| Major industry group | Accessions: New hires | | | | | | | | | | | | | | |
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1960 | 1959 |
| | Accessions: Total ³ | | | | | | | | | | | | | | |
| Manufacturing..... | 1.9 | 1.7 | 2.2 | 1.5 | 1.1 | 1.0 | 0.9 | 1.0 | 0.7 | 1.0 | 1.5 | 1.9 | 1.9 | 2.0 | 1.3 |
| Durable goods..... | 1.9 | 1.5 | 2.0 | 1.4 | 1.1 | 1.0 | .8 | .9 | .7 | .9 | 1.5 | 1.8 | 1.8 | 2.0 | 1.3 |
| Ordinance and accessories..... | 2.2 | 1.6 | 2.2 | 1.1 | 1.0 | .7 | 1.1 | 1.2 | 1.1 | 1.4 | 2.6 | 1.9 | 1.7 | 1.9 | 1.7 |
| Lumber and wood products..... | 3.8 | 3.5 | 5.6 | 4.5 | 3.1 | 1.9 | 1.4 | 1.9 | 1.1 | 1.1 | 2.6 | 3.6 | 3.6 | 3.7 | 2.7 |
| Furniture and fixtures..... | 3.6 | 2.9 | 2.3 | 1.5 | 1.1 | 1.3 | .9 | 1.0 | .9 | 1.2 | 1.8 | 2.7 | 4.4 | 2.8 | 1.7 |
| Stone, clay, and glass products..... | 1.0 | 1.3 | 2.0 | 1.1 | .9 | .8 | .5 | .6 | .4 | .6 | 1.1 | 1.8 | 1.4 | 1.8 | .9 |
| Primary metal industries..... | 1.0 | .7 | 1.0 | .7 | .5 | .3 | .3 | .4 | .3 | .3 | .4 | .6 | .6 | 1.5 | .5 |
| Fabricated metal products..... | 2.4 | 1.5 | 2.0 | 1.6 | 1.3 | 1.0 | .8 | .9 | .6 | .6 | 1.5 | 1.9 | 2.0 | 2.1 | 1.4 |
| Machinery (except electrical)..... | 1.2 | .9 | 1.4 | 1.0 | .9 | .8 | .7 | .8 | .5 | .7 | .9 | 1.2 | 1.3 | 1.8 | .6 |
| Electrical machinery..... | 1.9 | 1.4 | 1.9 | 1.2 | .9 | 1.1 | 1.0 | 1.0 | .7 | 1.3 | 1.7 | 2.2 | 1.8 | 2.2 | 1.4 |
| Transportation equipment..... | 1.1 | 1.1 | 1.4 | .9 | .8 | .8 | .9 | .9 | .8 | 1.1 | 2.0 | 1.9 | 1.6 | 1.5 | 1.3 |
| Instruments and related products..... | 1.7 | 1.5 | 2.3 | 1.0 | .8 | .8 | .9 | .9 | .6 | .9 | 1.0 | 1.2 | 1.7 | 1.9 | .9 |
| Miscellaneous manufacturing..... | 4.2 | 3.3 | 3.7 | 2.7 | 1.7 | 1.9 | 1.6 | 1.6 | 1.1 | 1.6 | 2.5 | 3.9 | 4.2 | 3.0 | 1.9 |
| Nondurable goods ⁴ | 2.1 | 1.9 | 2.5 | 1.7 | 1.3 | 1.1 | 1.0 | 1.1 | .8 | 1.1 | 1.5 | 2.0 | 2.1 | 2.0 | 1.3 |
| Food and kindred products..... | 2.1 | 2.2 | 3.3 | 1.9 | 1.3 | 1.2 | .9 | 1.1 | 1.0 | 1.3 | 2.0 | 2.5 | 2.3 | 2.0 | 1.5 |
| Tobacco manufactures..... | 1.5 | .8 | .7 | .6 | .3 | .4 | .4 | .7 | .2 | .4 | .9 | 1.2 | 1.2 | 1.1 | .8 |
| Textile-mill products..... | 2.5 | 2.0 | 2.4 | 2.0 | 1.5 | 1.3 | 1.0 | 1.1 | .7 | 1.1 | 1.4 | 1.8 | 2.2 | 2.1 | 1.5 |
| Apparel and other finished textile products..... | 2.6 | 2.6 | 2.4 | 2.0 | 2.0 | 1.7 | 1.5 | 1.6 | .8 | 1.3 | 1.9 | 2.9 | 3.2 | 3.0 | 1.8 |
| Paper and allied products..... | 1.8 | 1.6 | 2.7 | 1.4 | 1.2 | 1.0 | .7 | .8 | .6 | .9 | 1.3 | 1.8 | 1.7 | 1.9 | 1.3 |
| Chemicals and allied products..... | 1.3 | 1.2 | 2.2 | 1.1 | .9 | .8 | .7 | .6 | .5 | .7 | .8 | 1.4 | 1.2 | 1.3 | .8 |
| Products of petroleum and coal..... | .2 | .6 | 1.6 | .6 | .3 | .2 | .3 | .3 | .2 | .3 | .5 | .6 | .6 | .6 | .3 |
| Rubber products..... | 1.6 | 1.1 | 1.4 | 1.1 | .8 | .6 | .5 | .5 | .3 | .5 | .9 | 1.7 | 1.4 | 1.7 | .8 |
| Leather and leather products..... | 2.8 | 2.8 | 3.2 | 2.6 | 1.8 | 1.6 | 1.7 | 2.4 | 2.1 | 2.0 | 2.0 | 2.5 | 2.8 | 2.6 | 1.7 |
| Nonmanufacturing..... | .9 | 1.2 | 2.4 | 1.4 | 1.0 | .8 | 1.0 | 1.2 | .9 | 1.0 | 1.4 | 1.7 | 1.2 | 1.4 | .7 |
| Metal mining..... | .3 | .1 | .2 | .1 | .3 | .2 | .3 | .2 | .8 | 1.5 | .2 | .3 | .9 | .3 | .4 |
| Anthracite mining..... | .6 | .5 | .3 | .3 | .2 | .2 | .3 | .3 | .2 | .4 | .5 | .4 | .5 | .4 | .3 |
| Bituminous coal mining..... | | | | | | | | | | | | | | | |

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group¹—Continued

| Major industry group | 1961 | | | | | | | | | | 1960 | | | | | Annual average | |
|--|---------------------|------|------|-----|------|------|------|------|------|------|------|-------|------|------|------|----------------|--|
| | [Per 100 employees] | | | | | | | | | | | | | | | | |
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | | |
| Separations: Total ² | | | | | | | | | | | | | | | | | |
| Manufacturing..... | 3.2 | 3.5 | 2.9 | 2.8 | 2.8 | 3.4 | 3.6 | 4.3 | 4.1 | 3.9 | 3.8 | 4.4 | 4.3 | 3.4 | 3.6 | | |
| Durable goods..... | 3.3 | 3.9 | 3.0 | 2.9 | 2.9 | 3.7 | 4.1 | 4.9 | 4.5 | 4.2 | 4.0 | 4.6 | 4.6 | 3.5 | 3.9 | | |
| Ordnance and accessories..... | 2.4 | 2.6 | 2.3 | 2.7 | 2.4 | 2.8 | 2.5 | 2.8 | 2.4 | 2.5 | 2.7 | 4.1 | 2.2 | 2.3 | 2.9 | | |
| Lumber and wood products..... | 4.2 | 4.1 | 3.5 | 3.5 | 3.0 | 4.6 | 4.0 | 4.8 | 5.0 | 6.7 | 6.0 | 6.6 | 5.7 | 4.6 | 4.3 | | |
| Furniture and fixtures..... | 3.6 | 3.7 | 2.5 | 3.5 | 3.2 | 3.8 | 3.3 | 4.1 | 4.0 | 4.6 | 4.8 | 4.7 | 4.1 | 3.7 | 3.7 | | |
| Stone, clay, and glass products..... | 2.8 | 2.5 | 2.4 | 2.3 | 3.2 | 3.2 | 3.2 | 5.0 | 4.6 | 3.8 | 3.1 | 4.3 | 3.6 | 2.8 | 3.5 | | |
| Primary metal industries..... | 2.6 | 2.2 | 2.1 | 2.2 | 2.0 | 1.8 | 3.2 | 4.1 | 4.6 | 4.7 | 4.6 | 4.6 | 4.5 | 2.3 | 3.3 | | |
| Fabricated metal products..... | 3.8 | 3.9 | 4.0 | 3.0 | 2.7 | 4.6 | 5.1 | 6.9 | 6.6 | 4.4 | 4.9 | 5.0 | 5.0 | 4.3 | 4.3 | | |
| Machinery (except electrical)..... | 2.6 | 2.6 | 2.6 | 2.6 | 2.3 | 2.8 | 2.7 | 3.1 | 2.8 | 2.9 | 3.2 | 4.1 | 3.8 | 2.7 | 3.3 | | |
| Electrical machinery..... | 2.8 | 2.5 | 2.5 | 2.3 | 2.6 | 2.8 | 2.9 | 3.8 | 3.2 | 3.4 | 2.8 | 3.6 | 2.9 | 2.8 | 3.1 | | |
| Transportation equipment..... | — | 8.6 | 4.1 | 4.0 | 4.4 | 5.7 | 7.6 | 7.7 | 8.3 | 4.6 | 4.3 | 4.8 | 7.4 | 5.2 | 5.1 | | |
| Instruments and related products..... | 2.1 | 1.9 | 1.7 | 1.5 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 2.2 | 1.7 | 3.3 | 2.8 | 2.1 | 2.4 | | |
| Miscellaneous manufacturing..... | 4.7 | 4.0 | 3.8 | 3.8 | 3.6 | 4.0 | 4.0 | 4.9 | 9.1 | 6.9 | 5.3 | 5.3 | 5.0 | 4.7 | 4.7 | | |
| Nondurable goods ³ | 3.2 | 2.8 | 2.5 | 2.5 | 2.7 | 2.8 | 2.8 | 3.2 | 3.3 | 3.4 | 3.4 | 4.2 | 3.6 | 3.0 | 3.0 | | |
| Food and kindred products..... | 4.4 | 3.7 | 3.2 | 3.4 | 3.4 | 3.9 | 4.2 | 4.1 | 4.4 | 4.4 | 4.0 | 5.2 | 4.3 | 4.0 | 3.8 | | |
| Tobacco manufactures..... | 1.6 | 1.6 | 1.5 | 1.9 | 2.4 | 2.6 | 1.6 | 2.1 | 1.7 | 1.6 | 1.8 | 1.9 | 2.3 | 1.9 | 2.3 | | |
| Textile-mill products..... | 3.5 | 3.1 | 2.8 | 2.8 | 2.6 | 3.0 | 2.8 | 3.7 | 3.5 | 4.1 | 3.7 | 4.5 | 4.0 | 3.3 | 3.4 | | |
| Apparel and other finished textile products..... | 2.9 | 3.3 | 2.9 | 3.0 | 3.8 | 2.8 | 2.8 | 3.5 | 3.7 | 4.4 | 4.1 | 4.4 | 4.4 | 3.8 | 3.8 | | |
| Paper and allied products..... | 2.8 | 2.4 | 2.1 | 1.9 | 2.1 | 2.3 | 2.3 | 2.7 | 2.8 | 3.8 | 2.8 | 4.2 | 2.9 | 2.6 | 2.4 | | |
| Chemical and allied products..... | 1.9 | 1.5 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.7 | 1.8 | 1.9 | 1.5 | 3.2 | 2.0 | 1.6 | 1.8 | | |
| Products of petroleum and coal..... | 1.6 | 1.1 | 1.0 | .9 | 1.0 | 1.0 | .7 | 1.2 | 1.3 | 1.5 | 2.3 | 2.6 | 1.4 | 1.1 | 1.3 | | |
| Rubber products..... | 1.9 | 2.0 | 2.4 | 2.0 | 1.9 | 3.2 | 4.2 | 3.9 | 3.7 | 3.8 | 3.4 | 3.3 | 3.1 | 2.5 | 2.7 | | |
| Leather and leather products..... | 4.9 | 4.1 | 3.6 | 3.5 | 4.4 | 4.5 | 3.8 | 3.6 | 3.4 | 3.5 | 5.0 | 4.8 | 4.8 | 3.9 | 3.7 | | |
| Nonmanufacturing: | | | | | | | | | | | | | | | | | |
| Metal mining..... | 2.4 | 2.0 | 2.0 | 2.6 | 2.2 | 2.9 | 2.4 | 7.2 | 6.2 | 4.3 | 3.6 | 4.3 | 3.7 | 2.6 | 3.9 | | |
| Anthracite mining..... | — | 2.5 | 3.5 | 2.8 | 2.2 | 2.1 | 2.5 | 4.2 | 5.7 | 3.1 | 3.1 | 2.9 | 1.8 | 2.9 | 4.8 | | |
| Bituminous coal mining..... | 2.2 | 3.0 | 1.5 | 2.0 | 1.9 | 3.2 | 3.2 | 1.5 | 5.0 | 2.0 | 1.9 | 1.8 | 3.3 | 3.6 | 2.5 | | |
| Separations: Quits | | | | | | | | | | | | | | | | | |
| Manufacturing..... | 1.3 | 0.9 | 1.0 | 0.8 | 0.8 | 0.7 | 0.6 | 0.7 | 0.6 | 0.7 | 1.0 | 1.9 | 1.5 | 1.3 | 0.9 | | |
| Durable goods..... | 1.1 | .8 | .9 | .7 | .7 | .6 | .5 | .6 | .5 | .6 | .9 | 1.7 | 1.3 | 1.2 | .8 | | |
| Ordnance and accessories..... | 1.1 | .8 | .7 | .7 | .7 | .7 | .7 | .8 | .6 | .7 | .9 | 1.9 | 1.1 | 1.1 | .8 | | |
| Lumber and wood products..... | 2.1 | 1.6 | 1.8 | 1.6 | 1.4 | 1.1 | 1.0 | 1.2 | .9 | 1.1 | 1.6 | 4.0 | 3.1 | 2.8 | 1.7 | | |
| Furniture and fixtures..... | 2.0 | 1.3 | 1.1 | 1.1 | 1.0 | 1.0 | .7 | .9 | .8 | .9 | 1.6 | 2.8 | 2.3 | 1.7 | 1.1 | | |
| Stone, clay, and glass products..... | 1.0 | .7 | .7 | .6 | .6 | .6 | .4 | .6 | .4 | .5 | .7 | 1.6 | 1.1 | .9 | .7 | | |
| Primary metal industries..... | .6 | .4 | .4 | .4 | .4 | .3 | .3 | .3 | .2 | .3 | .4 | .7 | .5 | .7 | .4 | | |
| Fabricated metal products..... | 1.3 | .7 | .8 | .7 | .7 | .6 | .4 | .5 | .4 | .5 | .8 | 1.6 | 1.2 | 1.1 | .8 | | |
| Machinery (except electrical)..... | .8 | .5 | .6 | .5 | .5 | .5 | .4 | .5 | .4 | .5 | .6 | 1.2 | .9 | .9 | .6 | | |
| Electrical machinery..... | 1.2 | .9 | .9 | .7 | .7 | .7 | .7 | .9 | .7 | .8 | 1.0 | 1.5 | 1.2 | 1.3 | .8 | | |
| Transportation equipment..... | — | .6 | .7 | .6 | .6 | .6 | .5 | .6 | .4 | .5 | .8 | 1.2 | .9 | 1.0 | .8 | | |
| Instruments and related products..... | .9 | .7 | .9 | .6 | .6 | .6 | .6 | .6 | .6 | .7 | .7 | 1.7 | 1.2 | 1.0 | .7 | | |
| Miscellaneous manufacturing..... | 2.0 | 1.4 | 1.6 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | .9 | 1.2 | 1.8 | 3.0 | 2.4 | 1.8 | 1.3 | | |
| Nondurable goods ³ | 1.5 | 1.2 | 1.1 | 1.0 | 1.0 | .9 | .8 | .9 | .7 | 1.0 | 1.2 | 2.3 | 1.8 | 1.4 | 1.0 | | |
| Food and kindred products..... | 1.5 | .9 | .9 | .8 | .7 | .7 | .6 | .8 | .6 | .9 | 1.1 | 2.1 | 1.5 | 1.2 | .9 | | |
| Tobacco manufactures..... | .9 | .7 | .6 | .6 | 1.1 | .8 | .8 | .9 | .6 | .7 | .9 | 1.2 | 1.2 | 1.1 | .9 | | |
| Textile-mill products..... | 2.0 | 1.5 | 1.4 | 1.4 | 1.2 | 1.1 | .9 | 1.0 | .8 | 1.0 | 1.4 | 2.2 | 2.1 | 1.6 | 1.2 | | |
| Apparel and other finished textile products..... | 2.1 | 2.2 | 1.9 | 1.8 | 1.8 | 1.6 | 1.6 | 1.7 | 1.3 | 1.8 | 2.3 | 3.0 | 3.2 | 2.5 | 1.7 | | |
| Paper and allied products..... | 1.3 | .8 | .8 | .7 | .6 | .6 | .5 | .6 | .5 | .6 | .9 | 2.5 | 1.5 | 1.2 | .8 | | |
| Chemicals and allied products..... | .8 | .5 | .6 | .5 | .4 | .4 | .4 | .5 | .4 | .4 | .6 | 1.9 | 1.0 | .7 | .8 | | |
| Products of petroleum and coal..... | .3 | .3 | .3 | .2 | .2 | .2 | .2 | .2 | .2 | .3 | .4 | 1.1 | .6 | .4 | .3 | | |
| Rubber products..... | .8 | .6 | .8 | .7 | .5 | .5 | .4 | .5 | .4 | .5 | .6 | 1.1 | .9 | .9 | .6 | | |
| Leather and leather products..... | 2.8 | 2.0 | 2.1 | 1.8 | 1.6 | 1.6 | 1.3 | 1.6 | 1.4 | 1.6 | 1.9 | 3.0 | 3.0 | 2.1 | 1.5 | | |
| Nonmanufacturing: | | | | | | | | | | | | | | | | | |
| Metal mining..... | 1.2 | 1.1 | 1.0 | 1.1 | .9 | .9 | .6 | .9 | .9 | .8 | .9 | 1.8 | 1.6 | 1.4 | 1.3 | | |
| Anthracite mining..... | — | (9) | .4 | (9) | .3 | (9) | .4 | (9) | .1 | .2 | .1 | .6 | .2 | .3 | .5 | | |
| Bituminous coal mining..... | .4 | .4 | .2 | .3 | .2 | .3 | .2 | .2 | .2 | .2 | .3 | .4 | .3 | .3 | .3 | | |

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group ¹—Continued

[Per 100 employees]

| Major industry group | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|---|-------------------|------|------|-----|------|------|------|------|------|------|------|-------|------|----------------|------|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Separations: Layoffs | | | | | | | | | | | | | | | |
| Manufacturing | 1.4 | 2.0 | 1.3 | 1.4 | 1.5 | 2.2 | 2.8 | 3.0 | 3.0 | 2.7 | 2.2 | 2.0 | 2.2 | 1.6 | 2.3 |
| Durable goods | 1.6 | 2.5 | 1.6 | 1.6 | 1.6 | 2.5 | 3.0 | 3.7 | 3.5 | 3.1 | 2.6 | 2.2 | 2.7 | 1.8 | 2.6 |
| Ordinance and accessories | 3.3 | 1.2 | 1.0 | 1.4 | 1.0 | 1.3 | 1.1 | 1.2 | 1.1 | 1.2 | 1.4 | 1.5 | .7 | .7 | 1.0 |
| Lumber and wood products | 1.5 | 1.9 | 1.2 | 1.3 | 1.1 | 2.9 | 2.5 | 3.1 | 3.7 | 3.1 | 3.8 | 1.9 | 1.0 | 1.7 | 2.1 |
| Furniture and fixtures | 1.1 | 1.8 | 1.0 | 1.9 | 1.7 | 2.3 | 2.0 | 2.6 | 2.7 | 3.2 | 2.6 | 1.5 | 1.2 | 1.4 | 2.2 |
| Stone, clay, and glass products | 1.2 | 1.3 | 1.1 | 1.2 | 2.1 | 2.1 | 2.4 | 4.0 | 3.8 | 2.8 | 1.9 | 2.2 | 1.6 | 1.4 | 2.6 |
| Primary metal industries | 1.4 | 1.2 | 1.1 | 1.2 | 1.2 | 2.0 | 2.4 | 3.3 | 3.9 | 3.9 | 3.7 | 3.3 | 3.5 | 1.0 | 2.0 |
| Fabricated metal products | 2.0 | 2.6 | 2.6 | 1.7 | 1.6 | 3.8 | 4.2 | 5.8 | 5.8 | 3.4 | 3.5 | 2.8 | 3.2 | 2.7 | 3.1 |
| Machinery (except electrical) | 1.3 | 1.6 | 1.4 | 1.6 | 1.2 | 1.6 | 1.8 | 2.1 | 1.9 | 2.1 | 2.1 | 2.3 | 2.4 | 1.2 | 2.4 |
| Electrical machinery | .8 | 1.0 | .8 | 1.0 | 1.2 | 1.4 | 1.6 | 2.1 | 1.9 | 1.9 | 1.2 | 1.0 | 1.1 | .9 | 1.9 |
| Transportation equipment | 7.3 | 2.7 | 2.6 | 3.0 | 4.6 | 6.7 | 6.6 | 4.4 | 3.5 | 2.8 | 2.8 | 5.8 | 3.6 | 3.6 | 2.8 |
| Instruments and related products | .8 | .8 | .5 | .4 | .9 | .9 | .7 | 1.0 | .8 | 1.2 | .7 | 1.2 | 1.1 | .6 | 1.3 |
| Miscellaneous manufacturing | 2.0 | 2.0 | 1.5 | 1.9 | 1.9 | 2.4 | 2.5 | 3.3 | 7.7 | 5.2 | 2.8 | 1.4 | 1.7 | 2.3 | 3.1 |
| Nondurable goods ³ | 1.1 | 1.2 | .9 | 1.0 | 1.3 | 1.5 | 1.6 | 1.8 | 2.1 | 2.0 | 1.7 | 1.4 | 1.2 | 1.2 | 1.7 |
| Food and kindred products | 2.4 | 2.4 | 1.8 | 2.1 | 2.2 | 2.6 | 3.2 | 2.9 | 3.3 | 3.1 | 2.3 | 2.6 | 2.4 | 2.4 | 2.3 |
| Tobacco manufactures | .4 | .7 | .6 | 1.1 | 1.1 | 1.5 | .6 | .9 | .8 | .7 | .6 | .4 | .6 | .3 | .9 |
| Textile-mill products | 1.0 | 1.1 | .9 | .9 | 1.0 | 1.5 | 1.5 | 2.2 | 2.3 | 1.7 | 1.9 | 1.7 | 1.4 | 1.2 | 1.6 |
| Apparel and other finished textile products | .4 | .7 | .8 | .9 | 1.6 | .9 | .9 | 1.5 | 2.1 | 2.3 | 1.5 | 1.0 | .8 | .9 | 1.3 |
| Paper and allied products | .9 | 1.0 | .8 | .7 | 1.0 | 1.2 | 1.4 | 1.5 | 1.8 | 1.7 | 1.4 | 1.0 | .8 | .9 | 1.3 |
| Chemicals and allied products | .6 | .6 | .4 | .5 | .6 | .6 | .6 | .9 | 1.1 | 1.1 | .6 | .8 | .8 | .5 | 1.0 |
| Products of petroleum and coal | .5 | .2 | .2 | .3 | .5 | .5 | .2 | .3 | 1.1 | .6 | 1.3 | .9 | .5 | .4 | .6 |
| Rubber products | .6 | 1.0 | .9 | .8 | .8 | 2.2 | 3.3 | 2.9 | 2.9 | 2.9 | 2.3 | 1.7 | 1.7 | 1.1 | 1.6 |
| Leather and leather products | 1.6 | 1.4 | .9 | 1.0 | 2.1 | 2.2 | 1.6 | 1.6 | 1.4 | 1.4 | 2.5 | 1.1 | 1.1 | 1.2 | 1.8 |
| Nonmanufacturing | | | | | | | | | | | | | | | |
| Metal mining | .4 | .4 | .2 | .8 | .6 | 1.2 | .8 | 5.4 | 3.9 | 2.8 | 2.0 | 1.6 | 1.0 | .6 | 2.3 |
| Anthracite mining | .6 | .6 | 2.3 | 2.6 | 1.3 | 1.1 | 1.8 | 2.0 | 4.5 | 2.4 | 7.3 | 1.3 | .4 | 1.7 | 3.7 |
| Bituminous coal mining | 1.5 | 2.2 | .9 | 1.3 | 1.2 | 2.6 | 2.7 | 1.0 | 4.4 | 1.4 | 1.3 | 1.0 | 2.6 | 3.1 | 2.6 |

¹ Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons:

(1) The labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth;

(2) Industry coverage is not identical, as the printing and publishing industry and some seasonal industries are excluded from turnover;

(3) Turnover rates tend to be understated because small firms are not as prominent in the turnover sample as in the employment sample; and

(4) Reports from plants affected by work stoppages are excluded from the

turnover series but the employment series reflects the influence of such stoppages.

² Preliminary.

³ Beginning with January 1959, transfers between establishments of the same firm are included in total accessions and total separations; therefore, rates for these items are not strictly comparable with prior data. Transfers comprise part of other accessions and other separations, the rates for which are not shown separately.

⁴ Excludes the printing, publishing, and allied industries group, and the following industries: Canning and preserving; women's, misses', and children's outerwear, and fertilizer.

⁵ Less than 0.05.

C.—Earnings and Hours

TABLE C-1. Gross hours and earnings of production workers,¹ by industry

| Industry | 1961 | | | | | | | | | | | | 1960 | | Annual average | |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|--|
| | Aug.3 | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | |
| Average weekly earnings | | | | | | | | | | | | | | | | |
| Mining..... | \$111.38 | \$114.93 | \$111.38 | \$108.81 | \$107.82 | \$104.10 | \$107.71 | \$109.60 | \$106.38 | \$105.32 | \$108.41 | \$107.47 | \$108.67 | \$107.73 | \$100.10 | |
| Metal..... | 111.91 | 113.71 | 113.02 | 108.67 | 110.02 | 108.13 | 109.35 | 110.30 | 111.79 | 108.54 | 110.43 | 112.74 | 111.49 | 103.31 | 96.22 | |
| Iron..... | 120.09 | 118.29 | 117.32 | 109.07 | 109.07 | 104.49 | 106.56 | 109.74 | 108.02 | 108.19 | 110.21 | 115.95 | 113.88 | 107.34 | 100.27 | |
| Copper..... | 112.28 | 115.23 | 115.72 | 111.49 | 115.72 | 114.69 | 114.97 | 114.86 | 117.02 | 115.18 | 115.72 | 116.75 | 116.24 | 106.17 | 94.62 | |
| Lead and zinc..... | 90.68 | 95.41 | 90.57 | 88.46 | 87.75 | 88.43 | 82.57 | 91.48 | 91.66 | 87.10 | 86.79 | 87.17 | 88.62 | 90.63 | 85.93 | |
| Anthracite..... | 91.12 | 106.26 | 91.19 | 90.12 | 84.56 | 90.58 | 106.19 | 107.90 | 95.36 | 94.45 | 95.22 | 94.26 | 94.26 | 84.96 | 76.01 | |
| Bituminous coal..... | 121.36 | 128.04 | 123.38 | 114.76 | 106.93 | 88.48 | 110.53 | 112.62 | 109.54 | 104.33 | 111.61 | 108.23 | 114.10 | 118.30 | 102.88 | |
| Crude-petroleum and natural-gas production..... | | | | | | | | | | | | | | | | |
| Petroleum and natural-gas production (except contract services)..... | 116.58 | 123.14 | 117.38 | 117.38 | 121.66 | 116.98 | 118.48 | 124.74 | 114.05 | 115.18 | 115.87 | 116.44 | 112.44 | 114.98 | 109.75 | |
| Nonmetallic mining and quarrying..... | 104.08 | 104.55 | 103.45 | 100.95 | 97.75 | 93.49 | 93.68 | 97.02 | 95.17 | 98.18 | 102.12 | 101.66 | 102.37 | 98.48 | 89.68 | |
| Contract construction..... | 128.44 | 126.79 | 126.79 | 123.03 | 120.33 | 119.64 | 122.40 | 122.72 | 115.26 | 117.20 | 125.50 | 123.13 | 124.31 | 114.82 | 110.47 | |
| Nonbuilding construction..... | 131.21 | 127.51 | 127.00 | 121.39 | 115.44 | 116.10 | 118.78 | 120.17 | 113.39 | 114.64 | 128.65 | 126.42 | 126.90 | 113.24 | 109.47 | |
| Highway and street construction..... | 127.31 | 123.22 | 121.18 | 113.54 | 104.25 | 104.06 | 105.03 | 108.64 | 101.90 | 106.75 | 126.43 | 123.98 | 124.26 | 108.09 | 104.14 | |
| Other nonbuilding construction..... | 135.38 | 132.84 | 133.82 | 129.68 | 125.84 | 126.79 | 128.44 | 128.95 | 122.62 | 122.66 | 131.02 | 128.88 | 129.97 | 118.40 | 114.26 | |
| Building construction..... | 128.06 | 126.32 | 126.32 | 123.54 | 121.45 | 120.41 | 123.19 | 123.63 | 115.56 | 117.66 | 122.17 | 122.40 | 123.68 | 115.28 | 110.67 | |
| General contractors..... | 118.45 | 117.57 | 116.82 | 114.28 | 111.45 | 109.95 | 113.56 | 114.48 | 106.23 | 109.02 | 114.66 | 112.73 | 113.52 | 108.59 | 102.53 | |
| Special-trade contractors..... | 132.85 | 131.41 | 131.77 | 128.51 | 126.35 | 125.99 | 127.78 | 128.15 | 121.34 | 122.82 | 125.93 | 127.44 | 128.82 | 120.27 | 115.28 | |
| Plumbing and heating..... | 140.96 | 139.46 | 138.34 | 137.62 | 136.52 | 135.41 | 136.82 | 138.71 | 133.22 | 130.82 | 137.52 | 134.61 | 135.89 | 128.56 | 122.28 | |
| Painting and decorating..... | 123.55 | 122.15 | 122.15 | 119.02 | 120.40 | 116.26 | 116.55 | 115.55 | 110.72 | 113.88 | 122.11 | 119.70 | 119.68 | 113.40 | 107.96 | |
| Electrical work..... | 155.54 | 155.54 | 155.35 | 154.71 | 153.95 | 154.71 | 153.95 | 154.26 | 153.60 | 148.92 | 155.62 | 151.70 | 151.32 | 142.08 | 135.97 | |
| Other special-trade contractors..... | 128.50 | 126.38 | 127.45 | 122.48 | 117.94 | 117.57 | 120.36 | 120.37 | 110.53 | 116.25 | 124.23 | 121.80 | 124.85 | 113.80 | 109.31 | |
| Average weekly hours | | | | | | | | | | | | | | | | |
| Mining..... | 41.1 | 42.1 | 41.1 | 40.3 | 39.6 | 38.7 | 39.6 | 40.0 | 39.4 | 39.8 | 40.3 | 40.1 | 40.7 | 40.5 | 39.1 | |
| Metal..... | 40.4 | 41.2 | 41.4 | 40.1 | 39.6 | 38.7 | 39.9 | 40.5 | 40.7 | 41.1 | 40.2 | 40.6 | 41.6 | 41.6 | 40.2 | |
| Iron..... | 40.3 | 39.3 | 39.5 | 37.1 | 36.6 | 35.8 | 36.0 | 37.2 | 37.3 | 37.0 | 38.4 | 40.4 | 40.1 | 37.4 | 36.2 | |
| Copper..... | 40.1 | 41.9 | 42.7 | 41.6 | 42.7 | 42.6 | 42.9 | 42.7 | 43.5 | 42.5 | 42.7 | 43.4 | 43.7 | 42.3 | 39.1 | |
| Lead and zinc..... | 39.6 | 40.6 | 39.9 | 38.8 | 39.0 | 39.3 | 40.6 | 40.1 | 40.0 | 38.2 | 37.9 | 37.9 | 38.7 | 40.1 | 38.8 | |
| Anthracite..... | 33.5 | 39.5 | 33.9 | 33.5 | 31.2 | 33.8 | 37.0 | 38.4 | 34.8 | 34.6 | 34.5 | 30.8 | 34.4 | 30.9 | 28.9 | |
| Bituminous coal..... | 37.0 | 38.3 | 37.6 | 35.2 | 32.9 | 30.3 | 33.9 | 34.2 | 34.8 | 32.1 | 34.1 | 33.2 | 33.0 | 36.4 | 33.9 | |
| Crude-petroleum and natural-gas production..... | | | | | | | | | | | | | | | | |
| Petroleum and natural-gas production (except contract services)..... | 40.2 | 41.6 | 40.2 | 40.2 | 41.1 | 40.2 | 40.3 | 42.0 | 40.3 | 40.7 | 40.8 | 41.0 | 40.8 | 40.9 | 40.6 | |
| Nonmetallic mining and quarrying..... | 44.1 | 44.3 | 44.4 | 43.7 | 42.5 | 41.7 | 41.6 | 42.0 | 41.2 | 42.5 | 44.4 | 44.2 | 44.9 | 43.8 | 43.3 | |
| Contract construction..... | 38.0 | 37.4 | 37.4 | 36.4 | 35.6 | 35.5 | 36.0 | 36.2 | 34.1 | 35.3 | 37.8 | 37.7 | 37.9 | 36.8 | 36.7 | |
| Nonbuilding construction..... | 42.6 | 41.4 | 41.1 | 39.8 | 38.1 | 38.7 | 39.2 | 39.4 | 37.3 | 38.6 | 42.8 | 42.0 | 42.3 | 40.3 | 40.1 | |
| Highway and street construction..... | 43.6 | 42.2 | 41.5 | 39.7 | 37.5 | 38.4 | 38.9 | 38.8 | 36.1 | 38.4 | 43.9 | 43.5 | 43.0 | 41.1 | 41.0 | |
| Other nonbuilding construction..... | 41.4 | 40.5 | 40.8 | 39.9 | 38.6 | 39.1 | 39.4 | 39.8 | 38.2 | 38.7 | 41.2 | 40.4 | 41.0 | 39.6 | 39.4 | |
| Building construction..... | 36.8 | 36.3 | 36.3 | 35.5 | 35.0 | 34.8 | 35.4 | 35.0 | 33.4 | 34.5 | 36.6 | 36.0 | 36.7 | 35.6 | 35.7 | |
| General contractors..... | 36.9 | 36.4 | 36.3 | 35.6 | 35.0 | 34.7 | 35.6 | 35.0 | 33.3 | 34.5 | 36.4 | 35.9 | 36.5 | 35.7 | 35.6 | |
| Special-trade contractors..... | 36.7 | 36.3 | 36.4 | 35.5 | 35.0 | 34.9 | 35.2 | 35.4 | 33.4 | 34.5 | 36.6 | 36.0 | 36.7 | 35.0 | 35.8 | |
| Plumbing and heating..... | 38.2 | 38.0 | 37.9 | 37.6 | 37.2 | 37.2 | 37.3 | 37.9 | 36.0 | 36.2 | 38.2 | 37.6 | 38.3 | 37.7 | 37.8 | |
| Painting and decorating..... | 35.3 | 34.9 | 35.0 | 34.2 | 34.4 | 33.6 | 33.8 | 33.2 | 32.0 | 33.2 | 35.6 | 35.0 | 35.4 | 35.0 | 34.6 | |
| Electrical work..... | 38.5 | 38.5 | 38.7 | 38.2 | 38.2 | 38.7 | 38.5 | 38.4 | 37.7 | 37.8 | 39.1 | 38.7 | 38.9 | 38.4 | 38.2 | |
| Other special-trade contractors..... | 36.3 | 35.7 | 35.8 | 34.6 | 33.6 | 33.4 | 34.0 | 34.1 | 31.4 | 33.5 | 35.8 | 35.1 | 36.1 | 34.8 | 34.7 | |
| Average hourly earnings | | | | | | | | | | | | | | | | |
| Mining..... | \$2.71 | \$2.73 | \$2.71 | \$2.70 | \$2.71 | \$2.69 | \$2.73 | \$2.74 | \$2.70 | \$2.68 | \$2.69 | \$2.68 | \$2.67 | \$2.66 | \$2.56 | |
| Metal..... | 2.77 | 2.76 | 2.73 | 2.71 | 2.73 | 2.71 | 2.70 | 2.71 | 2.72 | 2.70 | 2.72 | 2.71 | 2.68 | 2.67 | 2.48 | |
| Iron..... | 2.98 | 3.01 | 2.97 | 2.94 | 2.98 | 2.96 | 2.96 | 2.95 | 2.92 | 2.87 | 2.87 | 2.87 | 2.84 | 2.87 | 2.77 | |
| Copper..... | 2.80 | 2.75 | 2.71 | 2.68 | 2.71 | 2.69 | 2.68 | 2.69 | 2.69 | 2.71 | 2.71 | 2.69 | 2.66 | 2.61 | 2.42 | |
| Lead and zinc..... | 2.29 | 2.35 | 2.27 | 2.28 | 2.25 | 2.25 | 2.28 | 2.28 | 2.29 | 2.28 | 2.29 | 2.30 | 2.29 | 2.26 | 2.17 | |
| Anthracite..... | 2.72 | 2.69 | 2.69 | 2.69 | 2.72 | 2.68 | 2.87 | 2.81 | 2.74 | 2.73 | 2.76 | 2.74 | 2.74 | 2.75 | 2.63 | |
| Bituminous coal..... | 3.28 | 3.30 | 3.29 | 3.26 | 3.25 | 3.25 | 3.27 | 3.29 | 3.26 | 3.25 | 3.27 | 3.26 | 3.26 | 3.25 | 3.02 | |
| Crude-petroleum and natural-gas production..... | | | | | | | | | | | | | | | | |
| Petroleum and natural-gas production (except contract services)..... | 2.90 | 2.96 | 2.92 | 2.92 | 2.96 | 2.91 | 2.94 | 2.97 | 2.83 | 2.83 | 2.84 | 2.84 | 2.70 | 2.81 | 2.69 | |
| Nonmetallic mining and quarrying..... | 2.36 | 2.36 | 2.33 | 2.31 | 2.30 | 2.30 | 2.30 | 2.31 | 2.31 | 2.31 | 2.30 | 2.30 | 2.28 | 2.28 | 2.07 | |
| Contract construction..... | 3.38 | 3.39 | 3.39 | 3.38 | 3.38 | 3.37 | 3.40 | 3.39 | 3.38 | 3.32 | 3.32 | 3.31 | 3.28 | 3.12 | 3.01 | |
| Nonbuilding construction..... | 3.08 | 3.08 | 3.09 | 3.05 | 3.03 | 3.00 | 3.03 | 3.05 | 3.04 | 2.97 | 3.02 | 3.01 | 3.00 | 2.81 | 2.73 | |
| Highway and street construction..... | 2.92 | 2.92 | 2.92 | 2.86 | 2.78 | 2.71 | 2.70 | 2.80 | 2.82 | 2.78 | 2.88 | 2.85 | 2.85 | 2.68 | 2.54 | |
| Other nonbuilding construction..... | 3.27 | 3.28 | 3.28 | 3.25 | 3.26 | 3.23 | 3.26 | 3.24 | 3.21 | 3.17 | 3.18 | 3.19 | 3.17 | 2.99 | 2.90 | |
| Building construction..... | 3.48 | 3.48 | 3.48 | 3.48 | 3.47 | 3.46 | 3.48 | 3.47 | 3.40 | 3.42 | 3.42 | 3.40 | 3.37 | 3.22 | 3.19 | |
| General contractors..... | 3.21 | 3.23 | 3.21 | 3.21 | 3.19 | 3.16 | 3.19 | 3.18 | 3.19 | 3.16 | 3.15 | 3.14 | 3.11 | 2.98 | 2.88 | |
| Special-trade contractors..... | 3.62 | 3.62 | 3.62 | 3.62 | 3.61 | 3.61 | 3.63 | 3.62 | 3.60 | 3.56 | 3.55 | 3.54 | 3.51 | 3.38 | 3.22 | |
| Plumbing and heating..... | 3.69 | 3.67 | 3.65 | 3.66 | 3.66 | 3.64 | 3.66 | 3.66 | 3.64 | 3.60 | 3.60 | 3.58 | 3.54 | 3.41 | 3.26 | |
| Painting and decorating..... | 3.50 | 3.50 | 3.49 | 3.48 | 3.50 | 3.46 | 3.50 | 3.47 | 3.46 | 3.43 | 3.43 | 3.42 | 3.36 | 3.24 | 3.12 | |
| Electrical work..... | 4.04 | 4.04 | 4.04 | 4.05 | 4.03 | 4.04 | 4.01 | 4.00 | 3.95 | 3.95 | 3.96 | 3.92 | 3.89 | 3.70 | 3.53 | |
| Other special-trade contractors..... | 3.54 | 3.54 | 3.56 | 3.54 | 3.51 | 3.52 | 3.54 | 3.53 | 3.52 | 3.47 | 3.47 | 3.47 | 3.45 | 3.27 | 3.16 | |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | | | 1960 | | | | | Annual average | |
|--|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | | |
| | Average weekly earnings | | | | | | | | | | | | | | | | |
| Manufacturing..... | \$93.83 | \$94.00 | \$94.24 | \$92.66 | \$91.57 | \$90.71 | \$90.25 | \$90.25 | \$89.55 | \$90.30 | \$91.31 | \$91.08 | \$90.35 | \$89.47 | \$88.59 | | |
| Durable goods..... | 101.00 | 100.90 | 101.91 | 100.50 | 99.35 | 97.96 | 97.07 | 97.22 | 96.97 | 97.42 | 98.89 | 98.15 | 97.20 | 97.10 | 96.06 | | |
| Nondurable goods..... | 84.77 | 84.74 | 84.53 | 83.07 | 82.43 | 82.04 | 81.02 | 81.41 | 80.18 | 81.48 | 81.81 | 81.72 | 81.77 | 79.00 | 78.27 | | |
| Durable goods | | | | | | | | | | | | | | | | | |
| Ordinance and accessories..... | 112.48 | 111.03 | 110.70 | 110.98 | 110.16 | 109.89 | 109.48 | 109.48 | 108.14 | 109.34 | 108.27 | 108.14 | 105.60 | 108.06 | 101.48 | | |
| Lumber and wood products..... | 84.65 | 82.53 | 84.65 | 83.20 | 81.37 | 77.80 | 76.23 | 77.00 | 77.59 | 77.18 | 81.58 | 84.19 | 81.97 | 79.79 | 75.41 | | |
| Sawmills and planing mills..... | 82.21 | 81.00 | 81.80 | 80.39 | 78.21 | 74.00 | 73.64 | 74.11 | 74.30 | 74.30 | 77.61 | 80.00 | 80.00 | 77.74 | 73.28 | | |
| Millwork, plywood, and prefabricated structural wood products..... | 88.17 | 86.22 | 87.97 | 86.48 | 86.27 | 83.18 | 80.70 | 80.88 | 81.54 | 79.93 | 83.20 | 82.56 | 84.00 | 84.05 | 79.88 | | |
| Wooden containers..... | 62.12 | 64.37 | 62.68 | 61.61 | 60.34 | 58.71 | 58.71 | 57.61 | 56.85 | 59.19 | 60.89 | 59.37 | 60.74 | 59.79 | 56.88 | | |
| Miscellaneous wood products..... | 69.77 | 68.91 | 70.69 | 69.43 | 69.36 | 67.87 | 67.87 | 66.97 | 66.36 | 68.28 | 69.70 | 66.19 | 68.45 | 66.42 | 63.02 | | |
| Furniture and fixtures..... | 77.30 | 75.20 | 75.01 | 72.56 | 72.93 | 72.74 | 71.96 | 71.24 | 70.01 | 74.05 | 75.55 | 75.74 | 75.89 | 74.44 | 70.81 | | |
| Household furniture..... | 72.04 | 70.22 | 70.45 | 67.58 | 68.55 | 67.55 | 67.20 | 66.33 | 70.80 | 69.52 | 71.10 | 71.46 | 71.23 | 70.93 | 66.78 | | |
| Office, public-building, and professional furniture..... | 89.01 | 86.46 | 85.84 | 85.41 | 84.56 | 88.08 | 85.84 | 84.99 | 86.43 | 85.81 | 88.99 | 88.88 | 89.03 | 85.49 | 79.79 | | |
| Partitions, shelving, lockers, and fixtures..... | 105.33 | 98.31 | 98.58 | 97.20 | 93.45 | 94.14 | 94.71 | 92.88 | 92.49 | 94.95 | 95.83 | 95.30 | 97.27 | 91.66 | 85.97 | | |
| Screens, blinds, and miscellaneous furniture and fixtures..... | 80.16 | 79.38 | 81.19 | 77.41 | 77.03 | 76.63 | 75.47 | 75.86 | 76.44 | 77.70 | 79.95 | 77.20 | 77.76 | 73.93 | 71.56 | | |
| Average weekly hours | | | | | | | | | | | | | | | | | |
| Manufacturing..... | 40.1 | 40.0 | 40.1 | 39.8 | 39.3 | 39.1 | 38.9 | 38.9 | 38.6 | 39.3 | 39.7 | 39.6 | 39.8 | 40.3 | 39.3 | | |
| Durable goods..... | 40.4 | 40.2 | 40.6 | 40.2 | 39.9 | 39.5 | 39.3 | 39.2 | 39.1 | 39.6 | 40.2 | 39.9 | 40.0 | 40.8 | 39.5 | | |
| Nondurable goods..... | 39.8 | 39.6 | 39.5 | 39.0 | 38.7 | 38.7 | 38.4 | 38.4 | 38.0 | 38.8 | 39.0 | 39.1 | 39.5 | 39.6 | 38.8 | | |
| Durable goods | | | | | | | | | | | | | | | | | |
| Ordinance and accessories..... | 40.9 | 40.7 | 40.7 | 40.8 | 40.8 | 40.7 | 40.7 | 40.7 | 40.2 | 40.8 | 40.4 | 40.5 | 40.0 | 41.3 | 40.9 | | |
| Lumber and wood products..... | 40.5 | 39.3 | 40.5 | 40.0 | 39.5 | 38.9 | 38.5 | 38.8 | 38.6 | 38.4 | 39.6 | 39.9 | 39.6 | 40.5 | 39.9 | | |
| Sawmills and planing mills..... | 40.9 | 40.1 | 40.9 | 40.6 | 39.7 | 38.9 | 38.5 | 38.6 | 38.9 | 38.9 | 39.8 | 40.2 | 40.2 | 40.7 | 39.8 | | |
| Millwork, plywood, and prefabricated structural wood products..... | 41.2 | 40.1 | 41.3 | 40.6 | 40.5 | 39.8 | 38.8 | 38.7 | 39.2 | 38.8 | 40.0 | 39.5 | 40.0 | 41.0 | 40.5 | | |
| Wooden containers..... | 40.6 | 41.0 | 40.7 | 40.8 | 39.7 | 39.4 | 39.4 | 38.0 | 37.9 | 39.2 | 39.8 | 38.8 | 39.7 | 40.4 | 39.6 | | |
| Miscellaneous wood products..... | 40.8 | 40.3 | 41.1 | 40.6 | 40.8 | 40.4 | 40.1 | 40.1 | 39.5 | 40.4 | 41.0 | 40.7 | 40.5 | 41.0 | 40.2 | | |
| Furniture and fixtures..... | 40.9 | 40.0 | 39.9 | 38.8 | 39.0 | 38.9 | 38.7 | 38.3 | 39.9 | 39.6 | 40.4 | 40.5 | 40.8 | 40.9 | 39.5 | | |
| Household furniture..... | 40.7 | 39.9 | 39.8 | 38.4 | 38.9 | 38.6 | 38.4 | 37.9 | 40.0 | 39.5 | 40.4 | 40.8 | 40.7 | 41.0 | 39.8 | | |
| Office, public-building, and professional furniture..... | 41.4 | 40.4 | 40.8 | 40.1 | 39.7 | 40.2 | 40.3 | 39.9 | 40.2 | 40.1 | 41.2 | 41.2 | 41.8 | 41.1 | 39.5 | | |
| Partitions, shelving, lockers, and fixtures..... | 42.3 | 39.8 | 40.3 | 40.0 | 39.1 | 38.9 | 39.3 | 38.7 | 38.7 | 39.4 | 39.6 | 39.5 | 40.7 | 40.2 | 38.9 | | |
| Screens, blinds, and miscellaneous furniture and fixtures..... | 40.9 | 40.5 | 40.8 | 39.9 | 39.5 | 39.5 | 38.7 | 38.9 | 39.2 | 40.1 | 41.0 | 40.0 | 40.5 | 40.4 | 40.5 | | |
| Average hourly earnings | | | | | | | | | | | | | | | | | |
| Manufacturing..... | \$2.34 | \$2.35 | \$2.35 | \$2.34 | \$2.33 | \$2.32 | \$2.32 | \$2.32 | \$2.32 | \$2.30 | \$2.30 | \$2.30 | \$2.27 | \$2.22 | \$2.18 | | |
| Durable goods..... | 2.50 | 2.51 | 2.51 | 2.50 | 2.49 | 2.48 | 2.47 | 2.48 | 2.48 | 2.46 | 2.46 | 2.46 | 2.43 | 2.38 | 2.28 | | |
| Nondurable goods..... | 2.13 | 2.14 | 2.14 | 2.13 | 2.13 | 2.12 | 2.11 | 2.12 | 2.11 | 2.10 | 2.09 | 2.09 | 2.07 | 2.01 | 1.94 | | |
| Durable goods | | | | | | | | | | | | | | | | | |
| Ordinance and accessories..... | 2.75 | 2.75 | 2.72 | 2.72 | 2.70 | 2.70 | 2.69 | 2.69 | 2.69 | 2.68 | 2.68 | 2.67 | 2.64 | 2.55 | 2.48 | | |
| Lumber and wood products..... | 2.09 | 2.10 | 2.09 | 2.08 | 2.06 | 2.06 | 1.98 | 2.00 | 2.01 | 2.01 | 2.06 | 2.11 | 2.07 | 1.97 | 1.86 | | |
| Sawmills and planing mills..... | 2.01 | 2.02 | 2.00 | 1.98 | 1.97 | 1.92 | 1.91 | 1.92 | 1.91 | 1.91 | 1.95 | 1.99 | 1.99 | 1.91 | 1.84 | | |
| Millwork, plywood, and prefabricated structural wood products..... | 2.14 | 2.15 | 2.13 | 2.13 | 2.13 | 2.09 | 2.08 | 2.09 | 2.08 | 2.06 | 2.08 | 2.09 | 2.10 | 2.05 | 1.96 | | |
| Wooden containers..... | 1.53 | 1.57 | 1.54 | 1.51 | 1.52 | 1.49 | 1.49 | 1.49 | 1.50 | 1.51 | 1.53 | 1.55 | 1.53 | 1.48 | 1.44 | | |
| Miscellaneous wood products..... | 1.71 | 1.71 | 1.72 | 1.71 | 1.70 | 1.68 | 1.68 | 1.67 | 1.68 | 1.69 | 1.70 | 1.70 | 1.69 | 1.62 | 1.58 | | |
| Furniture and fixtures..... | 1.89 | 1.88 | 1.88 | 1.87 | 1.87 | 1.87 | 1.86 | 1.86 | 1.88 | 1.87 | 1.87 | 1.87 | 1.86 | 1.82 | 1.78 | | |
| Household furniture..... | 1.77 | 1.76 | 1.77 | 1.76 | 1.77 | 1.75 | 1.75 | 1.75 | 1.77 | 1.76 | 1.76 | 1.76 | 1.75 | 1.73 | 1.69 | | |
| Office, public-building, and professional furniture..... | 2.15 | 2.14 | 2.13 | 2.13 | 2.13 | 2.14 | 2.13 | 2.13 | 2.15 | 2.14 | 2.16 | 2.15 | 2.13 | 2.08 | 2.02 | | |
| Partitions, shelving, lockers, and fixtures..... | 2.49 | 2.47 | 2.44 | 2.43 | 2.39 | 2.42 | 2.41 | 2.40 | 2.39 | 2.41 | 2.42 | 2.41 | 2.39 | 2.28 | 2.21 | | |
| Screens, blinds, and miscellaneous furniture and fixtures..... | 1.96 | 1.96 | 1.99 | 1.94 | 1.95 | 1.94 | 1.95 | 1.95 | 1.95 | 1.94 | 1.95 | 1.93 | 1.92 | 1.83 | 1.78 | | |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | 1960 | | | | | | | Annual average | |
|---|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | |
| Average weekly earnings | | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | | |
| Durable goods—Continued | | | | | | | | | | | | | | | | |
| Stone, clay, and glass products..... | \$97.06 | \$96.17 | \$96.64 | \$94.83 | \$93.26 | \$92.86 | \$91.54 | \$91.54 | \$91.48 | \$94.02 | \$94.07 | \$92.75 | \$93.89 | \$90.83 | \$84.80 | |
| Flat glass..... | 126.25 | 125.02 | 126.25 | 124.19 | 118.49 | 121.99 | 121.99 | 124.03 | 130.29 | 135.79 | 133.66 | 128.54 | 125.42 | 113.46 | 113.10 | |
| Glass and glassware, pressed or blown..... | 96.15 | 95.44 | 96.56 | 94.56 | 93.93 | 94.47 | 94.07 | 92.90 | 91.26 | 93.60 | 92.57 | 91.25 | 92.86 | 88.18 | 85.75 | |
| Glass products made of purchased glass..... | 78.01 | 75.46 | 78.39 | 76.82 | 74.69 | 73.92 | 74.50 | 73.91 | 78.38 | 79.32 | 79.10 | 75.34 | 74.48 | 73.45 | 71.55 | |
| Cement, hydraulic..... | 108.53 | 108.79 | 106.90 | 105.82 | 103.72 | 103.46 | 101.00 | 101.65 | 103.06 | 105.56 | 104.75 | 105.18 | 103.57 | 98.98 | 92.92 | |
| Structural clay products..... | 85.49 | 85.28 | 85.70 | 84.25 | 83.02 | 80.99 | 79.17 | 79.97 | 79.56 | 81.60 | 82.01 | 81.00 | 83.64 | 80.39 | 75.25 | |
| Pottery and related products..... | 82.13 | 82.21 | 84.58 | 84.58 | 82.88 | 82.94 | 81.31 | 79.79 | 80.14 | 83.76 | 83.76 | 80.41 | 83.28 | 79.80 | 73.24 | |
| Concrete, gypsum, and plaster products..... | 101.46 | 101.00 | 99.67 | 96.77 | 95.85 | 93.66 | 91.24 | 91.94 | 90.61 | 93.50 | 95.91 | 95.48 | 96.36 | 91.96 | 86.43 | |
| Cut-stone and stone products..... | 82.03 | 79.10 | 79.87 | 79.71 | 78.31 | 77.49 | 75.43 | 75.65 | 74.97 | 75.98 | 78.28 | 76.73 | 78.62 | 75.44 | 73.31 | |
| Miscellaneous nonmetallic mineral products..... | 101.27 | 100.37 | 102.01 | 99.06 | 97.44 | 96.40 | 96.24 | 96.24 | 96.23 | 97.04 | 97.77 | 97.53 | 98.49 | 96.93 | 87.96 | |
| Primary metal industries..... | 115.03 | 117.49 | 117.09 | 114.26 | 112.13 | 108.97 | 107.73 | 107.82 | 105.28 | 104.72 | 106.12 | 106.78 | 106.68 | 112.72 | 100.97 | |
| Blast furnaces, steel works, and rolling mills..... | 123.38 | 127.04 | 129.01 | 122.29 | 120.02 | 115.44 | 113.77 | 114.25 | 109.34 | 106.86 | 109.63 | 110.90 | 110.53 | 122.28 | 108.00 | |
| Iron and steel foundries..... | 100.10 | 100.98 | 101.49 | 99.71 | 96.26 | 94.63 | 93.25 | 92.62 | 94.12 | 94.13 | 95.78 | 95.78 | 95.98 | 97.44 | 85.93 | |
| Primary smelting and refining of nonferrous metals..... | 111.78 | 112.61 | 111.82 | 108.95 | 108.68 | 107.87 | 108.89 | 109.75 | 110.43 | 110.83 | 110.29 | 111.51 | 110.43 | 105.93 | 99.06 | |
| Secondary smelting and refining of nonferrous metals..... | 98.17 | 98.25 | 99.80 | 97.77 | 97.77 | 96.40 | 95.20 | 98.01 | 94.47 | 96.48 | 96.08 | 95.20 | 94.40 | 94.16 | 88.84 | |
| Rolling, drawing, and alloying of nonferrous metals..... | 121.26 | 117.74 | 118.58 | 116.62 | 114.54 | 112.33 | 110.00 | 110.42 | 108.63 | 110.42 | 110.42 | 110.15 | 109.96 | 110.62 | 100.90 | |
| Nonferrous foundries..... | 103.31 | 103.31 | 103.97 | 102.84 | 103.31 | 102.00 | 103.17 | 101.89 | 101.38 | 101.09 | 102.11 | 101.96 | 101.96 | 100.28 | 93.06 | |
| Miscellaneous primary metal industries..... | 115.14 | 115.59 | 116.87 | 113.20 | 110.83 | 106.64 | 108.81 | 108.25 | 106.64 | 108.74 | 109.42 | 109.42 | 108.47 | 113.85 | 102.31 | |
| Average weekly hours | | | | | | | | | | | | | | | | |
| Stone, clay, and glass products..... | 41.3 | 41.1 | 41.3 | 40.7 | 40.2 | 40.2 | 39.9 | 39.8 | 39.6 | 40.7 | 40.9 | 40.5 | 41.0 | 41.1 | 40.0 | |
| Flat glass..... | 39.7 | 40.2 | 39.7 | 39.3 | 38.1 | 39.1 | 39.1 | 39.5 | 41.1 | 42.7 | 41.9 | 40.3 | 40.2 | 41.6 | 38.6 | |
| Glass and glassware, pressed or blown..... | 40.4 | 40.1 | 40.4 | 39.9 | 39.8 | 40.2 | 40.2 | 39.7 | 39.0 | 40.0 | 39.9 | 39.5 | 40.2 | 39.7 | 39.7 | |
| Glass products made of purchased glass..... | 39.8 | 39.1 | 40.2 | 39.6 | 38.5 | 38.3 | 38.6 | 38.9 | 40.4 | 41.1 | 41.2 | 40.8 | 39.2 | 39.7 | 39.1 | |
| Cement, hydraulic..... | 40.8 | 40.9 | 40.8 | 40.7 | 40.2 | 40.1 | 39.3 | 39.4 | 40.1 | 40.6 | 40.6 | 40.3 | 40.3 | 40.9 | 40.4 | |
| Structural clay products..... | 41.1 | 41.0 | 41.2 | 40.9 | 40.3 | 39.7 | 39.0 | 39.2 | 39.0 | 40.0 | 40.2 | 40.0 | 41.0 | 40.6 | 39.4 | |
| Pottery and related products..... | 37.5 | 37.2 | 38.1 | 38.1 | 37.5 | 37.7 | 37.3 | 36.6 | 37.1 | 38.6 | 38.6 | 37.4 | 38.2 | 38.0 | 35.9 | |
| Concrete, gypsum, and plaster products..... | 44.5 | 44.3 | 44.1 | 43.2 | 42.6 | 42.0 | 41.1 | 41.6 | 41.0 | 42.5 | 43.4 | 43.4 | 44.0 | 44.0 | 43.0 | |
| Cut-stone and stone products..... | 42.5 | 41.2 | 41.6 | 41.3 | 41.0 | 41.0 | 39.7 | 40.4 | 39.3 | 40.2 | 41.2 | 40.6 | 41.6 | 41.0 | 40.5 | |
| Miscellaneous nonmetallic mineral products..... | 41.0 | 40.8 | 41.3 | 40.6 | 40.1 | 40.0 | 40.1 | 40.1 | 39.6 | 40.1 | 40.4 | 40.3 | 40.7 | 41.6 | 39.8 | |
| Primary metal industries..... | 39.6 | 40.1 | 40.1 | 39.4 | 38.8 | 38.1 | 37.8 | 37.7 | 37.2 | 37.4 | 37.9 | 38.0 | 38.1 | 40.4 | 38.1 | |
| Blast furnaces, steel works, and rolling mills..... | 38.8 | 39.7 | 39.5 | 38.7 | 38.1 | 37.0 | 36.7 | 36.5 | 35.5 | 35.5 | 36.3 | 36.5 | 36.6 | 39.7 | 37.5 | |
| Iron and steel foundries..... | 39.1 | 39.0 | 39.8 | 39.1 | 38.2 | 37.7 | 37.3 | 36.9 | 37.2 | 37.5 | 38.0 | 38.0 | 38.7 | 40.1 | 37.3 | |
| Primary smelting and refining of nonferrous metals..... | 40.5 | 41.1 | 41.0 | 40.5 | 40.4 | 40.4 | 40.7 | 40.8 | 40.9 | 41.2 | 41.0 | 41.3 | 40.9 | 40.9 | 40.1 | |
| Secondary smelting and refining of nonferrous metals..... | 40.4 | 40.6 | 40.9 | 40.4 | 40.4 | 40.0 | 39.8 | 40.5 | 39.2 | 40.2 | 40.2 | 40.0 | 40.0 | 41.3 | 40.2 | |
| Rolling, drawing, and alloying of nonferrous metals..... | 42.4 | 41.9 | 42.2 | 41.8 | 41.2 | 40.7 | 40.0 | 40.3 | 39.5 | 40.3 | 40.3 | 40.2 | 40.4 | 41.9 | 40.2 | |
| Nonferrous foundries..... | 40.2 | 40.2 | 40.3 | 39.9 | 40.2 | 40.0 | 40.3 | 39.8 | 39.6 | 39.8 | 40.2 | 40.3 | 40.8 | 41.1 | 39.6 | |
| Miscellaneous primary metal industries..... | 40.4 | 40.7 | 40.9 | 40.0 | 39.3 | 38.8 | 39.0 | 38.8 | 39.4 | 39.5 | 39.5 | 39.5 | 39.5 | 41.4 | 39.2 | |
| Average hourly earnings | | | | | | | | | | | | | | | | |
| Stone, clay, and glass products..... | \$2.35 | \$2.34 | \$2.34 | \$2.33 | \$2.32 | \$2.31 | \$2.30 | \$2.30 | \$2.31 | \$2.31 | \$2.30 | \$2.29 | \$2.29 | \$2.21 | \$2.12 | |
| Flat glass..... | 3.18 | 3.11 | 3.18 | 3.16 | 3.11 | 3.12 | 3.12 | 3.14 | 3.17 | 3.18 | 3.19 | 3.14 | 3.12 | 3.16 | 2.93 | |
| Glass and glassware, pressed or blown..... | 2.38 | 2.38 | 2.39 | 2.37 | 2.36 | 2.35 | 2.34 | 2.34 | 2.34 | 2.34 | 2.32 | 2.31 | 2.31 | 2.22 | 2.18 | |
| Glass products made of purchased glass..... | 1.96 | 1.93 | 1.95 | 1.94 | 1.94 | 1.93 | 1.93 | 1.90 | 1.94 | 1.93 | 1.92 | 1.92 | 1.90 | 1.85 | 1.83 | |
| Cement, hydraulic..... | 2.66 | 2.66 | 2.62 | 2.60 | 2.58 | 2.58 | 2.57 | 2.58 | 2.57 | 2.60 | 2.58 | 2.61 | 2.57 | 2.42 | 2.30 | |
| Structural clay products..... | 2.08 | 2.08 | 2.08 | 2.06 | 2.06 | 2.04 | 2.03 | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 1.98 | 1.91 | |
| Pottery and related products..... | 2.19 | 2.21 | 2.22 | 2.22 | 2.21 | 2.20 | 2.18 | 2.18 | 2.16 | 2.17 | 2.17 | 2.18 | 2.18 | 2.10 | 2.04 | |
| Concrete, gypsum, and plaster products..... | 2.28 | 2.28 | 2.28 | 2.24 | 2.25 | 2.23 | 2.22 | 2.21 | 2.21 | 2.20 | 2.21 | 2.20 | 2.19 | 2.09 | 2.01 | |
| Cut-stone and stone products..... | 1.93 | 1.92 | 1.92 | 1.93 | 1.91 | 1.89 | 1.90 | 1.88 | 1.90 | 1.89 | 1.90 | 1.89 | 1.89 | 1.84 | 1.81 | |
| Miscellaneous nonmetallic mineral products..... | 2.47 | 2.46 | 2.47 | 2.44 | 2.43 | 2.41 | 2.40 | 2.40 | 2.43 | 2.42 | 2.42 | 2.42 | 2.42 | 2.33 | 2.21 | |
| Primary metal industries..... | 2.93 | 2.93 | 2.92 | 2.90 | 2.89 | 2.88 | 2.88 | 2.86 | 2.83 | 2.80 | 2.80 | 2.81 | 2.80 | 2.79 | 2.65 | |
| Blast furnaces, steel works, and rolling mills..... | 3.18 | 3.20 | 3.19 | 3.16 | 3.15 | 3.12 | 3.10 | 3.13 | 3.08 | 3.01 | 3.02 | 3.03 | 3.02 | 3.08 | 2.88 | |
| Iron and steel foundries..... | 2.56 | 2.55 | 2.55 | 2.55 | 2.52 | 2.51 | 2.50 | 2.51 | 2.53 | 2.51 | 2.52 | 2.52 | 2.48 | 2.43 | 2.31 | |
| Primary smelting and refining of nonferrous metals..... | 2.76 | 2.74 | 2.72 | 2.69 | 2.69 | 2.67 | 2.70 | 2.69 | 2.70 | 2.69 | 2.69 | 2.70 | 2.70 | 2.59 | 2.47 | |
| Secondary smelting and refining of nonferrous metals..... | 2.43 | 2.42 | 2.44 | 2.42 | 2.42 | 2.41 | 2.41 | 2.42 | 2.41 | 2.40 | 2.39 | 2.38 | 2.38 | 2.28 | 2.21 | |
| Rolling, drawing, and alloying of nonferrous metals..... | 2.86 | 2.81 | 2.81 | 2.79 | 2.78 | 2.76 | 2.75 | 2.74 | 2.75 | 2.74 | 2.74 | 2.74 | 2.72 | 2.64 | 2.51 | |
| Nonferrous foundries..... | 2.57 | 2.57 | 2.58 | 2.57 | 2.57 | 2.55 | 2.56 | 2.56 | 2.56 | 2.54 | 2.54 | 2.53 | 2.53 | 2.44 | 2.35 | |
| Miscellaneous primary metal industries..... | 2.85 | 2.84 | 2.85 | 2.83 | 2.82 | 2.80 | 2.79 | 2.79 | 2.80 | 2.78 | 2.77 | 2.77 | 2.76 | 2.75 | 2.61 | |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|---|-------------------|----------|----------|----------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------------|---------|
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| Durable goods—Continued | | | | | | | | | | | | | | | |
| Average weekly earnings | | | | | | | | | | | | | | | |
| Fabricated metal products..... | \$102.01 | \$102.10 | \$103.18 | \$101.66 | \$99.60 | \$97.81 | \$96.82 | \$97.07 | \$96.58 | \$98.18 | \$100.04 | \$100.94 | \$100.45 | \$97.41 | \$90.80 |
| Tin cans and other tinware..... | 127.75 | 127.75 | 126.58 | 121.25 | 118.24 | 114.90 | 115.87 | 116.72 | 114.45 | 114.90 | 114.09 | 115.79 | 119.26 | 112.36 | 104.42 |
| Cutlery, handtools, and hardware..... | 95.91 | 94.72 | 95.08 | 96.00 | 93.69 | 92.67 | 89.15 | 92.28 | 93.30 | 95.27 | 95.34 | 94.56 | 94.77 | 92.28 | 86.18 |
| Heating apparatus (except electric) and plumbers' supplies..... | 97.77 | 96.40 | 98.01 | 96.56 | 95.68 | 94.23 | 93.60 | 92.54 | 91.06 | 90.30 | 92.90 | 93.30 | 93.38 | 91.83 | 87.01 |
| Fabricated structural metal products..... | 104.30 | 102.87 | 103.07 | 101.40 | 100.65 | 100.15 | 99.40 | 99.00 | 99.10 | 100.94 | 101.68 | 102.18 | 101.84 | 96.72 | 93.43 |
| Metal stamping, coating, and engraving..... | 105.47 | 106.45 | 106.55 | 108.86 | 104.06 | 100.19 | 98.42 | 97.27 | 98.94 | 101.24 | 104.70 | 109.42 | 107.17 | 102.58 | 92.63 |
| Lighting fixtures..... | 92.00 | 92.10 | 93.73 | 91.08 | 87.55 | 85.57 | 86.33 | 86.71 | 86.41 | 89.04 | 94.48 | 93.79 | 89.24 | 87.72 | 80.17 |
| Fabricated wire products..... | 93.97 | 95.12 | 95.58 | 94.42 | 93.15 | 92.46 | 93.32 | 92.00 | 89.24 | 89.72 | 90.35 | 90.12 | 89.60 | 89.60 | 83.74 |
| Miscellaneous fabricated metal products..... | 100.86 | 99.47 | 101.11 | 98.98 | 96.47 | 93.83 | 94.47 | 94.47 | 93.09 | 95.82 | 96.48 | 94.64 | 95.91 | 97.44 | 88.53 |
| Machinery (except electrical)..... | 107.04 | 106.78 | 107.98 | 107.04 | 105.78 | 105.32 | 104.92 | 104.92 | 103.74 | 103.46 | 104.49 | 103.57 | 103.68 | 103.25 | 94.25 |
| Engines and turbines..... | 114.86 | 113.72 | 114.29 | 113.65 | 117.20 | 114.62 | 113.81 | 112.84 | 114.45 | 113.65 | 112.80 | 113.08 | 114.90 | 110.42 | 102.26 |
| Agricultural machinery and tractors..... | 105.87 | 104.91 | 108.79 | 107.33 | 108.81 | 107.19 | 108.00 | 106.13 | 106.27 | 104.94 | 104.80 | 104.66 | 104.12 | 104.00 | 95.59 |
| Construction and mining machinery..... | 107.12 | 106.49 | 105.56 | 108.86 | 105.15 | 102.17 | 101.77 | 101.12 | 101.77 | 101.24 | 101.49 | 100.86 | 100.84 | 101.38 | 91.89 |
| Metalworking machinery..... | 114.54 | 116.79 | 117.03 | 116.47 | 116.47 | 114.93 | 113.96 | 112.61 | 111.23 | 109.62 | 111.25 | 109.62 | 110.84 | 114.06 | 101.38 |
| Special-industry machinery (except metalworking machinery)..... | 102.34 | 102.34 | 102.92 | 101.68 | 101.02 | 99.88 | 100.61 | 100.12 | 100.21 | 100.53 | 101.50 | 101.02 | 101.46 | 98.08 | 89.55 |
| General industrial machinery..... | 106.19 | 105.01 | 106.55 | 105.11 | 103.68 | 102.66 | 102.51 | 102.11 | 100.98 | 102.11 | 102.87 | 102.72 | 103.22 | 100.94 | 93.06 |
| Office and store machines and devices..... | 109.47 | 111.07 | 110.27 | 107.86 | 107.18 | 106.52 | 106.63 | 104.37 | 104.66 | 105.97 | 106.80 | 105.30 | 101.63 | 98.89 | 93.30 |
| Service-industry and household machines..... | 100.95 | 102.51 | 102.30 | 102.36 | 101.45 | 100.19 | 98.78 | 100.84 | 99.54 | 98.80 | 98.70 | 98.46 | 96.87 | 97.20 | 90.68 |
| Miscellaneous machinery parts..... | 105.15 | 103.72 | 105.82 | 103.57 | 103.17 | 101.75 | 101.75 | 102.26 | 99.96 | 100.69 | 101.85 | 101.20 | 100.65 | 101.43 | 92.73 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Fabricated metal products..... | 41.0 | 40.7 | 41.1 | 40.5 | 40.0 | 39.6 | 39.2 | 39.3 | 39.1 | 39.9 | 40.3 | 40.7 | 41.0 | 41.1 | 40.6 |
| Tin cans and other tinware..... | 43.9 | 43.9 | 43.8 | 42.1 | 41.2 | 40.6 | 40.5 | 41.1 | 40.3 | 40.6 | 40.6 | 41.8 | 42.9 | 42.4 | 41.6 |
| Cutlery, handtools, and hardware..... | 40.3 | 39.8 | 40.2 | 40.0 | 39.7 | 39.1 | 38.1 | 39.1 | 39.2 | 40.2 | 40.4 | 39.9 | 40.5 | 41.0 | 39.7 |
| Heating apparatus (except electric) and plumbers' supplies..... | 40.4 | 40.0 | 40.5 | 39.9 | 39.7 | 39.1 | 39.0 | 38.4 | 38.1 | 38.1 | 39.2 | 39.2 | 39.4 | 40.1 | 39.6 |
| Fabricated structural metal products..... | 41.1 | 40.5 | 40.9 | 40.4 | 40.1 | 39.9 | 39.6 | 40.0 | 39.8 | 40.7 | 41.0 | 41.2 | 41.4 | 40.3 | 40.1 |
| Metal stamping, coating, and engraving..... | 41.2 | 41.1 | 41.3 | 41.1 | 40.5 | 39.6 | 38.9 | 38.6 | 38.8 | 39.7 | 40.9 | 42.0 | 41.7 | 41.7 | 40.1 |
| Lighting fixtures..... | 40.0 | 39.7 | 40.4 | 39.6 | 38.4 | 38.2 | 38.2 | 37.9 | 39.4 | 40.9 | 40.6 | 40.2 | 40.8 | 39.3 | 39.8 |
| Fabricated wire products..... | 40.6 | 41.0 | 41.2 | 40.7 | 40.5 | 40.2 | 40.4 | 40.0 | 38.8 | 39.7 | 39.8 | 39.7 | 40.0 | 41.1 | 39.5 |
| Miscellaneous fabricated metal products..... | 41.0 | 40.6 | 41.1 | 40.4 | 39.7 | 39.6 | 39.2 | 39.2 | 39.0 | 39.8 | 40.2 | 39.6 | 40.3 | 42.0 | 39.7 |
| Machinery (except electrical)..... | 40.7 | 40.6 | 40.9 | 40.7 | 40.6 | 40.2 | 40.2 | 40.2 | 39.9 | 40.1 | 40.5 | 40.3 | 40.5 | 41.3 | 39.6 |
| Engines and turbines..... | 40.3 | 39.9 | 40.1 | 40.3 | 41.3 | 40.5 | 40.5 | 40.3 | 40.3 | 40.3 | 40.0 | 40.1 | 40.6 | 41.2 | 40.1 |
| Agricultural machinery and tractors..... | 39.8 | 39.0 | 39.7 | 39.9 | 40.3 | 39.7 | 40.0 | 39.6 | 39.8 | 39.6 | 40.0 | 40.1 | 40.2 | 40.5 | 39.8 |
| Construction and mining machinery..... | 41.2 | 40.8 | 40.6 | 41.1 | 40.6 | 39.6 | 39.6 | 39.5 | 39.6 | 39.7 | 39.8 | 39.4 | 39.7 | 41.2 | 39.1 |
| Metalworking machinery..... | 41.2 | 41.5 | 41.3 | 41.3 | 41.3 | 40.9 | 40.7 | 40.8 | 40.3 | 40.3 | 40.9 | 40.6 | 40.9 | 42.4 | 39.6 |
| Special-industry machinery (except metalworking machinery)..... | 41.1 | 41.1 | 41.5 | 41.0 | 40.9 | 40.6 | 40.9 | 40.7 | 40.9 | 41.2 | 41.6 | 41.4 | 42.1 | 41.9 | 39.8 |
| General industrial machinery..... | 41.0 | 40.7 | 41.3 | 40.9 | 40.5 | 40.1 | 40.2 | 40.2 | 39.6 | 40.2 | 40.5 | 40.6 | 40.8 | 41.2 | 39.6 |
| Office and store machines and devices..... | 41.0 | 41.6 | 41.3 | 40.7 | 40.6 | 40.5 | 40.7 | 40.6 | 40.1 | 40.6 | 41.0 | 40.8 | 39.7 | 40.2 | 39.7 |
| Service-industry and household machines..... | 39.9 | 40.2 | 40.3 | 40.3 | 40.1 | 39.6 | 39.2 | 39.7 | 39.5 | 39.4 | 39.8 | 39.7 | 39.7 | 40.5 | 39.6 |
| Miscellaneous machinery parts..... | 40.6 | 40.2 | 40.9 | 40.3 | 40.3 | 39.9 | 39.9 | 40.1 | 39.2 | 39.8 | 40.1 | 40.0 | 40.1 | 41.4 | 39.6 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Fabricated metal products..... | \$2.51 | \$2.51 | \$2.51 | \$2.51 | \$2.49 | \$2.47 | \$2.47 | \$2.47 | \$2.47 | \$2.46 | \$2.47 | \$2.48 | \$2.48 | \$2.37 | \$2.27 |
| Tin cans and other tinware..... | 2.91 | 2.91 | 2.89 | 2.88 | 2.87 | 2.83 | 2.84 | 2.84 | 2.84 | 2.83 | 2.81 | 2.77 | 2.78 | 2.65 | 2.61 |
| Cutlery, handtools, and hardware..... | 2.38 | 2.28 | 2.30 | 2.40 | 2.36 | 2.37 | 2.34 | 2.36 | 2.38 | 2.37 | 2.36 | 2.37 | 2.34 | 2.25 | 2.17 |
| Heating apparatus (except electric) and plumbers' supplies..... | 2.42 | 2.41 | 2.42 | 2.42 | 2.41 | 2.41 | 2.40 | 2.41 | 2.39 | 2.37 | 2.37 | 2.38 | 2.37 | 2.29 | 2.23 |
| Fabricated structural metal products..... | 2.54 | 2.54 | 2.52 | 2.51 | 2.51 | 2.51 | 2.51 | 2.49 | 2.48 | 2.48 | 2.48 | 2.48 | 2.46 | 2.40 | 2.33 |
| Metal stamping, coating, and engraving..... | 2.56 | 2.59 | 2.58 | 2.60 | 2.57 | 2.53 | 2.53 | 2.52 | 2.55 | 2.55 | 2.56 | 2.61 | 2.57 | 2.46 | 2.31 |
| Lighting fixtures..... | 2.30 | 2.32 | 2.32 | 2.30 | 2.28 | 2.24 | 2.26 | 2.27 | 2.28 | 2.26 | 2.31 | 2.31 | 2.27 | 2.18 | 2.04 |
| Fabricated wire products..... | 2.31 | 2.32 | 2.32 | 2.32 | 2.30 | 2.30 | 2.31 | 2.30 | 2.30 | 2.26 | 2.27 | 2.27 | 2.24 | 2.18 | 2.12 |
| Miscellaneous fabricated metal products..... | 2.46 | 2.45 | 2.46 | 2.45 | 2.43 | 2.42 | 2.41 | 2.41 | 2.41 | 2.40 | 2.40 | 2.39 | 2.38 | 2.32 | 2.23 |
| Machinery (except electrical)..... | 2.63 | 2.63 | 2.64 | 2.63 | 2.63 | 2.62 | 2.61 | 2.61 | 2.60 | 2.58 | 2.58 | 2.57 | 2.56 | 2.50 | 2.38 |
| Engines and turbines..... | 2.85 | 2.85 | 2.85 | 2.82 | 2.84 | 2.83 | 2.81 | 2.80 | 2.82 | 2.82 | 2.82 | 2.82 | 2.83 | 2.68 | 2.55 |
| Agricultural machinery and tractors..... | 2.66 | 2.69 | 2.69 | 2.69 | 2.70 | 2.70 | 2.70 | 2.68 | 2.67 | 2.65 | 2.62 | 2.61 | 2.59 | 2.57 | 2.49 |
| Construction and mining machinery..... | 2.60 | 2.61 | 2.60 | 2.60 | 2.59 | 2.58 | 2.57 | 2.56 | 2.57 | 2.55 | 2.55 | 2.58 | 2.54 | 2.46 | 2.35 |
| Metalworking machinery..... | 2.78 | 2.79 | 2.82 | 2.82 | 2.82 | 2.81 | 2.80 | 2.76 | 2.76 | 2.72 | 2.72 | 2.70 | 2.71 | 2.60 | 2.50 |
| Special-industry machinery (except metalworking machinery)..... | 2.49 | 2.49 | 2.48 | 2.48 | 2.47 | 2.46 | 2.46 | 2.46 | 2.45 | 2.44 | 2.44 | 2.44 | 2.41 | 2.34 | 2.25 |
| General industrial machinery..... | 2.59 | 2.58 | 2.58 | 2.57 | 2.56 | 2.56 | 2.55 | 2.54 | 2.53 | 2.54 | 2.54 | 2.53 | 2.53 | 2.45 | 2.35 |
| Office and store machines and devices..... | 2.67 | 2.67 | 2.67 | 2.65 | 2.64 | 2.63 | 2.62 | 2.62 | 2.61 | 2.61 | 2.60 | 2.60 | 2.56 | 2.48 | 2.35 |
| Service-industry and household machines..... | 2.53 | 2.55 | 2.54 | 2.54 | 2.53 | 2.53 | 2.52 | 2.52 | 2.52 | 2.50 | 2.48 | 2.48 | 2.44 | 2.40 | 2.29 |
| Miscellaneous machinery parts..... | 2.59 | 2.58 | 2.58 | 2.57 | 2.56 | 2.55 | 2.55 | 2.55 | 2.55 | 2.53 | 2.54 | 2.53 | 2.51 | 2.45 | 2.33 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| Average weekly earnings | | | | | | | | | | | | | | | |
| Durable goods—Continued | | | | | | | | | | | | | | | |
| Electrical machinery..... | \$94.80 | \$94.25 | \$95.91 | \$94.40 | \$94.16 | \$93.30 | \$93.77 | \$93.77 | \$92.28 | \$93.30 | \$93.09 | \$93.03 | \$91.77 | \$89.91 | \$88.14 |
| Electrical generating, transmission, distribution, and industrial apparatus..... | 99.94 | 100.10 | 100.10 | 99.05 | 99.05 | 98.15 | 98.00 | 97.91 | 97.57 | 97.11 | 96.16 | 96.80 | 96.80 | 94.19 | 89.73 |
| Electrical appliances..... | 94.71 | 95.68 | 94.32 | 95.28 | 96.40 | 95.44 | 94.38 | 93.56 | 90.68 | 90.48 | 92.00 | 89.93 | 90.00 | 89.27 | 84.36 |
| Insulated wire and cable..... | 91.32 | 95.26 | 93.31 | 89.88 | 88.83 | 87.84 | 87.57 | 88.19 | 85.80 | 87.76 | 90.21 | 87.76 | 88.20 | 87.18 | 86.11 |
| Electrical equipment for vehicles..... | 101.89 | 103.20 | 107.27 | 103.83 | 99.57 | 99.18 | 94.75 | 96.64 | 98.94 | 98.33 | 101.85 | 102.77 | 95.59 | 96.86 | 90.47 |
| Electric lamps..... | 90.39 | 89.24 | 90.62 | 89.93 | 90.85 | 89.70 | 89.93 | 86.33 | 81.98 | 89.67 | 89.65 | 86.08 | 87.47 | 88.13 | 80.47 |
| Communication equipment..... | 91.54 | 89.70 | 92.46 | 90.74 | 90.52 | 90.08 | 91.20 | 91.43 | 89.54 | 90.45 | 90.94 | 90.05 | 88.80 | 86.86 | 81.97 |
| Miscellaneous electrical products..... | 91.53 | 91.43 | 90.23 | 90.40 | 89.33 | 88.26 | 92.52 | 94.54 | 91.20 | 90.72 | 90.58 | 89.00 | 89.82 | 88.94 | 83.03 |
| Transportation equipment..... | 113.20 | 113.93 | 113.81 | 113.40 | 111.88 | 109.60 | 109.25 | 108.14 | 111.44 | 112.16 | 115.49 | 112.98 | 108.90 | 107.73 | 100.69 |
| Motor vehicles and equipment..... | 113.65 | 115.54 | 116.28 | 115.71 | 111.95 | 107.80 | 105.56 | 104.81 | 111.79 | 113.77 | 119.39 | 116.32 | 108.64 | 110.16 | 99.98 |
| Aircraft and parts..... | 113.70 | 112.35 | 111.65 | 112.20 | 112.75 | 113.99 | 114.82 | 114.13 | 113.44 | 112.61 | 111.93 | 111.24 | 110.84 | 106.63 | 101.91 |
| Ship and boat building and repairing..... | 114.51 | 113.20 | 110.43 | 111.60 | 110.80 | 108.47 | 108.98 | 108.31 | 106.12 | 108.98 | 100.53 | 103.97 | 108.23 | 101.40 | 98.00 |
| Railroad equipment..... | 107.73 | 109.54 | 109.91 | 108.59 | 105.08 | 107.26 | 103.49 | 106.02 | 106.39 | 103.58 | 108.67 | 106.96 | 107.24 | 107.41 | 100.70 |
| Other transportation equipment..... | 89.10 | 88.09 | 90.90 | 88.43 | 92.05 | 91.88 | 90.00 | 87.94 | 88.09 | 86.94 | 88.46 | 86.75 | 83.63 | 80.13 | 82.74 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Electrical machinery..... | 40.0 | 39.6 | 40.3 | 40.9 | 39.9 | 39.7 | 39.9 | 39.9 | 39.1 | 40.0 | 40.3 | 40.1 | 39.9 | 40.1 | 39.6 |
| Electrical generating, transmission, distribution, and industrial apparatus..... | 40.3 | 40.2 | 40.4 | 40.1 | 40.1 | 39.9 | 40.0 | 39.8 | 39.5 | 39.8 | 39.9 | 40.0 | 40.0 | 40.6 | 39.7 |
| Electrical appliances..... | 40.3 | 39.7 | 39.3 | 39.7 | 40.0 | 39.6 | 39.0 | 38.5 | 38.0 | 39.0 | 40.0 | 39.1 | 39.3 | 39.8 | 38.8 |
| Insulated wire and cable..... | 41.7 | 43.3 | 43.2 | 42.0 | 42.1 | 41.2 | 41.5 | 41.6 | 39.4 | 41.2 | 41.3 | 41.2 | 41.8 | 41.9 | 41.4 |
| Electrical equipment for vehicles..... | 39.8 | 40.0 | 41.1 | 40.4 | 39.2 | 39.2 | 37.9 | 38.5 | 38.8 | 39.1 | 40.1 | 40.3 | 38.7 | 40.4 | 38.9 |
| Electric lamps..... | 39.3 | 38.8 | 39.4 | 39.1 | 39.5 | 39.0 | 39.1 | 37.7 | 35.8 | 39.5 | 40.2 | 38.6 | 39.4 | 40.8 | 39.3 |
| Communication equipment..... | 39.8 | 39.0 | 40.2 | 39.8 | 39.7 | 39.6 | 40.0 | 40.1 | 39.1 | 40.2 | 40.6 | 40.2 | 40.0 | 40.4 | 39.6 |
| Miscellaneous electrical products..... | 40.5 | 40.1 | 40.1 | 49.0 | 39.7 | 39.4 | 40.4 | 40.4 | 40.0 | 40.5 | 40.8 | 40.0 | 40.1 | 40.5 | 40.3 |
| Transportation equipment..... | 40.0 | 40.4 | 40.5 | 40.5 | 40.1 | 39.9 | 39.3 | 38.9 | 39.8 | 40.2 | 41.1 | 40.2 | 39.6 | 40.1 | 39.8 |
| Motor vehicles and equipment..... | 39.6 | 40.4 | 40.8 | 40.6 | 39.7 | 38.5 | 37.7 | 37.3 | 39.5 | 40.2 | 41.6 | 40.6 | 38.8 | 40.8 | 39.2 |
| Aircraft and parts..... | 40.9 | 40.7 | 40.6 | 40.8 | 41.0 | 41.3 | 41.6 | 41.5 | 41.1 | 41.1 | 41.0 | 40.6 | 40.9 | 40.7 | 40.6 |
| Ship and boat building and repairing..... | 39.9 | 40.0 | 39.3 | 40.0 | 40.0 | 36.3 | 39.2 | 39.1 | 37.9 | 38.4 | 39.4 | 37.4 | 39.5 | 39.0 | 39.2 |
| Railroad equipment..... | 37.8 | 38.3 | 38.7 | 38.1 | 37.0 | 37.9 | 36.7 | 37.2 | 37.2 | 36.6 | 38.4 | 38.2 | 38.3 | 39.2 | 38.0 |
| Other transportation equipment..... | 39.6 | 39.5 | 40.4 | 39.3 | 40.2 | 40.3 | 39.3 | 38.4 | 38.3 | 38.3 | 38.5 | 38.9 | 37.5 | 40.7 | 39.4 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Electrical machinery..... | \$2.37 | \$2.38 | \$2.38 | \$2.36 | \$2.36 | \$2.35 | \$2.35 | \$2.35 | \$2.36 | \$2.33 | \$2.31 | \$2.32 | \$2.30 | \$2.22 | \$2.18 |
| Electrical generating, transmission, distribution, and industrial apparatus..... | 2.48 | 2.49 | 2.48 | 2.47 | 2.47 | 2.46 | 2.45 | 2.46 | 2.47 | 2.44 | 2.41 | 2.42 | 2.42 | 2.32 | 2.26 |
| Electrical appliances..... | 2.35 | 2.41 | 2.40 | 2.40 | 2.41 | 2.41 | 2.42 | 2.43 | 2.36 | 2.32 | 2.30 | 2.30 | 2.29 | 2.26 | 2.20 |
| Insulated wire and cable..... | 2.19 | 2.20 | 2.16 | 2.14 | 2.11 | 2.12 | 2.11 | 2.12 | 2.17 | 2.18 | 2.16 | 2.13 | 2.11 | 2.08 | 2.08 |
| Electrical equipment for vehicles..... | 2.56 | 2.58 | 2.61 | 2.57 | 2.54 | 2.53 | 2.50 | 2.51 | 2.55 | 2.52 | 2.54 | 2.55 | 2.47 | 2.39 | 2.30 |
| Electric lamps..... | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.29 | 2.29 | 2.27 | 2.23 | 2.23 | 2.22 | 2.16 | 2.08 |
| Communication equipment..... | 2.30 | 2.30 | 2.30 | 2.28 | 2.28 | 2.29 | 2.28 | 2.28 | 2.29 | 2.25 | 2.24 | 2.24 | 2.22 | 2.15 | 2.07 |
| Miscellaneous electrical products..... | 2.26 | 2.28 | 2.25 | 2.26 | 2.25 | 2.24 | 2.29 | 2.34 | 2.28 | 2.24 | 2.22 | 2.24 | 2.24 | 2.18 | 2.11 |
| Transportation equipment..... | 2.83 | 2.82 | 2.81 | 2.80 | 2.79 | 2.77 | 2.78 | 2.78 | 2.80 | 2.79 | 2.81 | 2.81 | 2.78 | 2.66 | 2.63 |
| Motor vehicles and equipment..... | 2.87 | 2.86 | 2.85 | 2.85 | 2.82 | 2.80 | 2.80 | 2.81 | 2.83 | 2.83 | 2.87 | 2.87 | 2.80 | 2.70 | 2.68 |
| Aircraft and parts..... | 2.78 | 2.76 | 2.76 | 2.75 | 2.75 | 2.76 | 2.76 | 2.76 | 2.75 | 2.74 | 2.73 | 2.74 | 2.71 | 2.62 | 2.61 |
| Ship and boat building and repairing..... | 2.87 | 2.83 | 2.81 | 2.79 | 2.77 | 2.76 | 2.78 | 2.77 | 2.80 | 2.76 | 2.78 | 2.78 | 2.74 | 2.60 | 2.60 |
| Railroad equipment..... | 2.85 | 2.86 | 2.84 | 2.85 | 2.84 | 2.83 | 2.82 | 2.85 | 2.86 | 2.83 | 2.83 | 2.80 | 2.80 | 2.74 | 2.65 |
| Other transportation equipment..... | 2.25 | 2.23 | 2.25 | 2.25 | 2.29 | 2.28 | 2.29 | 2.29 | 2.30 | 2.27 | 2.28 | 2.23 | 2.23 | 2.19 | 2.10 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| Average weekly earnings | | | | | | | | | | | | | | | |
| Durable goods—Continued | | | | | | | | | | | | | | | |
| Instruments and related products..... | \$98.17 | \$97.28 | \$98.66 | \$97.53 | \$97.28 | \$97.53 | \$96.64 | \$96.88 | \$94.47 | \$96.63 | \$95.99 | \$95.44 | \$95.99 | \$93.25 | \$87.38 |
| Laboratory, scientific, and engineering instruments..... | 117.26 | 115.43 | 117.16 | 114.77 | 114.90 | 117.01 | 114.62 | 119.14 | 113.83 | 116.34 | 116.34 | 115.51 | 115.79 | 111.14 | 103.07 |
| Mechanical measuring and controlling instruments..... | 97.61 | 95.68 | 98.33 | 96.08 | 96.48 | 96.08 | 94.80 | 94.24 | 91.80 | 94.71 | 92.97 | 92.04 | 91.57 | 92.62 | 86.73 |
| Optical instruments and lenses..... | 95.16 | 104.08 | 101.02 | 99.47 | 98.52 | 98.33 | 97.69 | 99.72 | 100.12 | 101.09 | 98.51 | 98.88 | 97.17 | 92.25 | 88.51 |
| Surgical, medical, and dental instruments..... | 86.88 | 85.86 | 84.63 | 84.42 | 83.60 | 83.81 | 85.06 | 84.02 | 80.85 | 85.88 | 86.51 | 85.68 | 85.06 | 82.82 | 78.00 |
| Ophthalmic goods..... | 86.07 | 85.39 | 85.80 | 83.62 | 82.61 | 81.39 | 79.56 | 77.95 | 77.32 | 78.16 | 77.81 | 77.95 | 79.80 | 77.50 | 71.41 |
| Photographic apparatus..... | 112.88 | 111.65 | 111.92 | 110.57 | 110.03 | 109.48 | 109.76 | 109.89 | 110.29 | 109.89 | 109.33 | 108.14 | 110.27 | 104.65 | 97.53 |
| Watches and clocks..... | 77.75 | 75.68 | 76.94 | 79.37 | 78.56 | 80.57 | 79.18 | 76.96 | 73.46 | 76.24 | 77.42 | 76.43 | 80.00 | 77.41 | 73.71 |
| Miscellaneous manufacturing industries | | | | | | | | | | | | | | | |
| Jewelry, silverware, and plated ware..... | 97.20 | 78.61 | 79.80 | 79.00 | 78.61 | 78.61 | 78.80 | 78.41 | 76.03 | 78.40 | 78.20 | 77.03 | 77.60 | 76.57 | 73.26 |
| Musical instruments and parts..... | 81.81 | 79.40 | 81.81 | 80.20 | 79.40 | 78.40 | 78.21 | 78.41 | 75.83 | 84.00 | 82.37 | 76.03 | 79.77 | 79.40 | 75.70 |
| Toys and sporting goods..... | 87.20 | 86.11 | 89.78 | 88.14 | 89.50 | 89.78 | 90.09 | 91.35 | 91.94 | 94.24 | 95.34 | 93.86 | 90.58 | 88.99 | 83.79 |
| Pens, pencils, other office supplies..... | 72.62 | 71.24 | 72.15 | 72.93 | 73.51 | 75.06 | 75.65 | 75.46 | 69.56 | 72.13 | 71.28 | 71.13 | 70.59 | 69.17 | 66.91 |
| Costume jewelry, buttons, notions..... | 69.89 | 69.84 | 72.22 | 72.04 | 72.10 | 71.31 | 71.50 | 67.89 | 68.56 | 71.10 | 72.80 | 71.94 | 72.00 | 70.58 | 67.72 |
| Fabricated plastics products..... | 71.68 | 70.92 | 73.57 | 73.23 | 71.37 | 69.84 | 70.20 | 70.23 | 67.15 | 71.10 | 70.71 | 65.82 | 68.56 | 68.90 | 65.18 |
| Other manufacturing industries..... | 87.35 | 87.56 | 88.20 | 86.52 | 84.66 | 84.03 | 83.42 | 83.01 | 80.91 | 83.23 | 83.44 | 84.05 | 83.04 | 83.20 | 79.17 |
| | 81.80 | 81.99 | 82.39 | 80.55 | 80.96 | 81.37 | 81.97 | 81.37 | 79.54 | 80.19 | 80.19 | 80.40 | 80.90 | 79.40 | 76.04 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Instruments and related products..... | 40.4 | 40.2 | 40.6 | 40.3 | 40.2 | 40.3 | 40.1 | 40.2 | 39.2 | 40.6 | 40.5 | 40.1 | 40.8 | 40.9 | 39.9 |
| Laboratory, scientific, and engineering instruments..... | 41.0 | 40.5 | 41.4 | 40.7 | 40.6 | 41.2 | 40.5 | 42.1 | 39.8 | 42.0 | 41.7 | 41.4 | 41.8 | 42.1 | 40.9 |
| Mechanical measuring and controlling instruments..... | 40.5 | 40.2 | 40.8 | 40.2 | 40.2 | 40.2 | 40.0 | 40.1 | 38.9 | 40.3 | 39.9 | 39.5 | 39.6 | 40.8 | 39.6 |
| Optical instruments and lenses..... | 39.0 | 41.8 | 40.9 | 40.6 | 40.5 | 40.3 | 40.2 | 40.7 | 41.2 | 41.6 | 41.0 | 41.2 | 41.0 | 41.0 | 40.6 |
| Surgical, medical, and dental instruments..... | 40.6 | 40.5 | 40.3 | 40.2 | 40.0 | 40.1 | 40.7 | 40.2 | 38.5 | 40.7 | 41.0 | 40.8 | 40.7 | 40.6 | 40.0 |
| Ophthalmic goods..... | 40.6 | 39.9 | 40.5 | 40.2 | 40.1 | 39.7 | 39.0 | 38.4 | 37.9 | 38.5 | 39.1 | 38.4 | 39.7 | 40.2 | 38.6 |
| Photographic apparatus..... | 41.5 | 41.2 | 41.3 | 40.8 | 40.6 | 40.4 | 40.5 | 40.4 | 41.0 | 41.2 | 41.1 | 40.5 | 41.3 | 41.2 | 40.3 |
| Watches and clocks..... | 38.3 | 37.1 | 37.9 | 39.1 | 38.7 | 39.3 | 39.2 | 38.1 | 37.1 | 38.9 | 39.7 | 38.6 | 40.2 | 39.9 | 39.0 |
| Miscellaneous manufacturing industries | | | | | | | | | | | | | | | |
| Jewelry, silverware, and plated ware..... | 40.0 | 39.7 | 40.1 | 39.7 | 39.5 | 39.5 | 39.6 | 39.4 | 38.4 | 40.0 | 40.1 | 39.5 | 40.0 | 40.3 | 39.6 |
| Musical instruments and parts..... | 40.7 | 39.9 | 40.7 | 39.9 | 39.5 | 39.2 | 39.5 | 39.8 | 38.3 | 42.0 | 41.6 | 38.4 | 40.7 | 41.6 | 40.7 |
| Toys and sporting goods..... | 40.0 | 39.5 | 39.9 | 39.0 | 39.6 | 39.9 | 40.4 | 40.6 | 40.5 | 41.7 | 42.0 | 41.4 | 40.8 | 41.2 | 39.9 |
| Pens, pencils, other office supplies..... | 39.2 | 38.3 | 39.0 | 39.0 | 39.1 | 39.3 | 39.4 | 39.3 | 37.4 | 39.2 | 39.6 | 39.3 | 39.0 | 39.3 | 38.9 |
| Costume jewelry, buttons, notions..... | 38.4 | 38.8 | 39.9 | 39.8 | 39.4 | 39.4 | 39.5 | 37.3 | 38.3 | 39.5 | 40.0 | 39.1 | 40.0 | 40.1 | 39.6 |
| Fabricated plastics products..... | 39.6 | 39.4 | 40.2 | 39.8 | 39.0 | 38.8 | 39.0 | 38.8 | 37.1 | 39.6 | 39.8 | 37.4 | 39.4 | 39.6 | 38.8 |
| Other manufacturing industries..... | 41.4 | 41.3 | 41.8 | 41.2 | 40.7 | 40.4 | 40.3 | 40.1 | 38.9 | 40.6 | 40.7 | 41.0 | 41.0 | 41.6 | 40.6 |
| | 39.9 | 39.8 | 39.8 | 39.1 | 39.3 | 39.5 | 39.6 | 39.6 | 38.8 | 39.8 | 39.7 | 39.8 | 39.9 | 40.1 | 39.4 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Instruments and related products..... | \$2.43 | \$2.42 | \$2.43 | \$2.42 | \$2.42 | \$2.42 | \$2.41 | \$2.41 | \$2.41 | \$2.38 | \$2.37 | \$2.38 | \$2.37 | \$2.28 | \$2.19 |
| Laboratory, scientific, and engineering instruments..... | 2.86 | 2.85 | 2.83 | 2.82 | 2.83 | 2.84 | 2.83 | 2.83 | 2.68 | 2.77 | 2.79 | 2.79 | 2.77 | 2.64 | 2.52 |
| Mechanical measuring and controlling instruments..... | 2.41 | 2.38 | 2.41 | 2.39 | 2.40 | 2.39 | 2.37 | 2.35 | 2.36 | 2.35 | 2.33 | 2.33 | 2.32 | 2.27 | 2.19 |
| Optical instruments and lenses..... | 2.44 | 2.40 | 2.47 | 2.45 | 2.44 | 2.44 | 2.43 | 2.45 | 2.43 | 2.43 | 2.41 | 2.40 | 2.37 | 2.25 | 2.18 |
| Surgical, medical, and dental instruments..... | 2.14 | 2.12 | 2.10 | 2.10 | 2.09 | 2.09 | 2.09 | 2.09 | 2.10 | 2.11 | 2.11 | 2.10 | 2.09 | 2.04 | 1.95 |
| Ophthalmic goods..... | 2.12 | 2.14 | 2.12 | 2.08 | 2.06 | 2.05 | 2.04 | 2.03 | 2.04 | 2.03 | 1.99 | 2.03 | 2.01 | 1.93 | 1.83 |
| Photographic apparatus..... | 2.72 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.71 | 2.72 | 2.69 | 2.66 | 2.66 | 2.67 | 2.67 | 2.54 | 2.42 |
| Watches and clocks..... | 2.03 | 2.04 | 2.03 | 2.03 | 2.03 | 2.05 | 2.02 | 2.02 | 1.98 | 1.96 | 1.95 | 1.98 | 1.99 | 1.94 | 1.80 |
| Miscellaneous manufacturing industries | | | | | | | | | | | | | | | |
| Jewelry, silverware, and plated ware..... | 1.98 | 1.98 | 1.99 | 1.99 | 1.99 | 1.99 | 1.99 | 1.99 | 1.98 | 1.96 | 1.95 | 1.96 | 1.94 | 1.90 | 1.85 |
| Musical instruments and parts..... | 2.01 | 1.99 | 2.01 | 2.01 | 2.01 | 2.00 | 1.98 | 1.97 | 1.98 | 2.00 | 1.98 | 1.98 | 1.96 | 1.91 | 1.86 |
| Toys and sporting goods..... | 1.18 | 1.18 | 1.25 | 1.26 | 1.26 | 1.25 | 1.23 | 1.22 | 1.27 | 1.26 | 1.27 | 1.26 | 1.22 | 1.16 | 1.10 |
| Pens, pencils, other office supplies..... | 1.86 | 1.86 | 1.85 | 1.87 | 1.88 | 1.91 | 1.92 | 1.92 | 1.86 | 1.84 | 1.80 | 1.81 | 1.81 | 1.76 | 1.72 |
| Costume jewelry, buttons, notions..... | 1.82 | 1.80 | 1.81 | 1.81 | 1.83 | 1.81 | 1.81 | 1.82 | 1.79 | 1.80 | 1.82 | 1.84 | 1.80 | 1.76 | 1.71 |
| Fabricated plastics products..... | 1.81 | 1.80 | 1.83 | 1.84 | 1.83 | 1.80 | 1.80 | 1.81 | 1.81 | 1.80 | 1.79 | 1.76 | 1.74 | 1.74 | 1.68 |
| Other manufacturing industries..... | 2.11 | 2.12 | 2.11 | 2.10 | 2.08 | 2.08 | 2.07 | 2.07 | 2.08 | 2.05 | 2.05 | 2.05 | 2.04 | 2.00 | 1.95 |
| | 2.05 | 2.06 | 2.07 | 2.06 | 2.06 | 2.06 | 2.07 | 2.06 | 2.05 | 2.05 | 2.02 | 2.02 | 2.02 | 1.98 | 1.93 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | | Annual average | |
|---|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | |
| Manufacturing—Continued | | | | | | | | | | | | | | | | |
| Average weekly earnings | | | | | | | | | | | | | | | | |
| Nondurable goods | | | | | | | | | | | | | | | | |
| Food and kindred products..... | \$90.20 | \$92.70 | \$92.48 | \$92.21 | \$89.95 | \$90.17 | \$89.78 | \$90.45 | \$89.24 | \$89.10 | \$88.97 | \$89.02 | \$88.58 | \$85.68 | \$81.81 | |
| Meat products..... | 99.14 | 103.17 | 103.91 | 102.84 | 90.54 | 100.25 | 99.29 | 101.56 | 101.59 | 102.18 | 101.11 | 102.51 | 99.70 | 97.23 | 91.08 | |
| Dairy products..... | 91.72 | 94.35 | 93.51 | 91.54 | 89.79 | 90.01 | 90.01 | 90.01 | 88.94 | 89.40 | 89.40 | 91.76 | 90.30 | 86.32 | 81.90 | |
| Canning and preserving..... | 75.67 | 71.39 | 72.00 | 74.09 | 70.06 | 69.94 | 69.93 | 68.82 | 67.71 | 64.79 | 72.00 | 74.09 | 74.03 | 67.64 | 66.12 | |
| Grain-mill products..... | 101.92 | 102.15 | 109.34 | 97.29 | 97.61 | 97.41 | 97.65 | 100.57 | 99.21 | 99.44 | 101.53 | 99.46 | 98.35 | 92.66 | 89.79 | |
| Bakery products..... | 92.29 | 92.80 | 93.43 | 91.53 | 89.15 | 89.15 | 90.23 | 88.31 | 88.93 | 89.91 | 89.51 | 89.06 | 88.48 | 83.21 | 79.00 | |
| Sugar..... | 102.58 | 106.68 | 101.68 | 104.50 | 99.14 | 102.09 | 103.09 | 103.26 | 102.91 | 102.11 | 92.84 | 98.25 | 96.96 | 93.10 | 89.73 | |
| Confectionery and related products..... | 76.92 | 75.43 | 76.38 | 76.19 | 74.82 | 73.45 | 73.65 | 73.42 | 69.30 | 70.88 | 72.85 | 74.66 | 73.12 | 68.90 | 66.30 | |
| Beverages..... | 103.89 | 108.26 | 104.45 | 101.45 | 101.09 | 99.94 | 96.86 | 97.36 | 97.61 | 99.75 | 99.20 | 99.29 | 100.53 | 96.80 | 92.23 | |
| Miscellaneous food products..... | 91.54 | 91.14 | 89.02 | 88.99 | 87.67 | 89.60 | 90.47 | 89.79 | 88.10 | 90.07 | 89.67 | 89.02 | 86.93 | 84.65 | 80.96 | |
| Tobacco manufactures..... | 69.87 | 72.19 | 75.43 | 72.20 | 72.19 | 66.43 | 66.59 | 66.53 | 69.95 | 65.60 | 65.21 | 63.27 | 64.81 | 65.40 | 62.56 | |
| Cigarettes..... | 86.86 | 84.07 | 90.03 | 85.46 | 86.33 | 79.08 | 80.77 | 80.81 | 86.69 | 83.07 | 82.32 | 79.58 | 79.13 | 81.80 | 77.55 | |
| Cigars..... | 57.66 | 55.57 | 56.54 | 54.76 | 53.44 | 52.27 | 52.56 | 54.31 | 54.68 | 58.26 | 56.79 | 55.01 | 54.72 | 53.02 | 51.76 | |
| Tobacco and snuff..... | 70.88 | 70.87 | 71.06 | 70.30 | 72.20 | 70.12 | 69.38 | 70.65 | 72.52 | 67.90 | 70.49 | 69.19 | 70.47 | 69.82 | 62.75 | |
| Tobacco stemming and redrying..... | 55.20 | 60.02 | 64.77 | 64.68 | 63.74 | 54.75 | 53.44 | 54.29 | 57.92 | 45.14 | 53.26 | 53.97 | 49.87 | 52.40 | 49.92 | |
| Average weekly hours | | | | | | | | | | | | | | | | |
| Food and kindred products..... | 41.0 | 41.2 | 41.1 | 40.8 | 39.8 | 39.9 | 39.9 | 40.2 | 40.2 | 40.5 | 41.0 | 41.6 | 41.2 | 40.8 | 40.7 | |
| Meat products..... | 40.3 | 41.6 | 41.9 | 41.3 | 40.3 | 40.1 | 39.4 | 40.3 | 40.8 | 41.2 | 41.1 | 41.5 | 41.2 | 41.2 | 40.3 | |
| Dairy products..... | 41.5 | 42.5 | 42.7 | 41.8 | 41.0 | 41.1 | 41.1 | 41.1 | 40.8 | 41.2 | 41.2 | 41.9 | 42.0 | 41.7 | 42.0 | |
| Canning and preserving..... | 40.9 | 38.8 | 38.5 | 39.2 | 36.8 | 37.2 | 37.8 | 37.4 | 36.8 | 36.4 | 40.0 | 42.2 | 40.9 | 39.1 | 39.6 | |
| Grain-mill products..... | 44.7 | 45.0 | 44.4 | 43.2 | 43.0 | 43.1 | 43.4 | 44.5 | 43.9 | 44.0 | 45.1 | 44.8 | 44.5 | 43.5 | 43.8 | |
| Bakery products..... | 40.3 | 40.7 | 40.8 | 40.5 | 39.8 | 39.8 | 40.1 | 39.6 | 39.7 | 40.5 | 40.5 | 40.3 | 40.4 | 40.2 | 40.1 | |
| Sugar..... | 41.7 | 42.5 | 41.0 | 41.8 | 40.8 | 41.5 | 42.6 | 44.7 | 51.2 | 50.8 | 42.3 | 40.6 | 40.4 | 43.3 | 44.2 | |
| Confectionery and related products..... | 40.7 | 39.7 | 40.2 | 40.1 | 39.8 | 39.7 | 39.9 | 39.9 | 38.5 | 39.6 | 40.7 | 40.8 | 40.4 | 39.6 | 39.7 | |
| Beverages..... | 40.9 | 41.8 | 40.8 | 40.1 | 39.8 | 39.5 | 38.9 | 39.1 | 39.2 | 39.9 | 40.0 | 40.2 | 40.7 | 40.6 | 40.1 | |
| Miscellaneous food products..... | 41.8 | 42.0 | 41.6 | 41.2 | 40.4 | 41.1 | 41.5 | 41.0 | 40.6 | 41.7 | 41.9 | 41.6 | 41.2 | 41.7 | 41.3 | |
| Tobacco manufactures..... | 39.7 | 38.4 | 39.7 | 38.2 | 38.4 | 36.7 | 37.2 | 37.8 | 39.3 | 37.7 | 40.5 | 40.3 | 37.9 | 39.4 | 39.1 | |
| Cigarettes..... | 40.4 | 39.1 | 41.3 | 39.2 | 39.6 | 37.3 | 38.1 | 38.3 | 40.7 | 39.0 | 39.2 | 37.6 | 38.6 | 40.9 | 40.6 | |
| Cigars..... | 38.7 | 37.8 | 38.2 | 37.0 | 36.6 | 35.8 | 36.0 | 37.2 | 37.2 | 39.1 | 38.9 | 38.9 | 38.0 | 37.6 | 37.8 | |
| Tobacco and snuff..... | 37.5 | 37.9 | 37.6 | 37.0 | 37.8 | 37.3 | 37.5 | 38.0 | 39.2 | 36.7 | 37.9 | 37.4 | 38.3 | 38.4 | 37.6 | |
| Tobacco stemming and redrying..... | 40.0 | 36.6 | 38.1 | 38.5 | 38.4 | 36.5 | 36.6 | 37.7 | 39.4 | 34.2 | 43.3 | 44.6 | 36.4 | 39.4 | 38.7 | |
| Average hourly earnings | | | | | | | | | | | | | | | | |
| Food and kindred products..... | \$2.20 | \$2.25 | \$2.25 | \$2.26 | \$2.26 | \$2.26 | \$2.25 | \$2.25 | \$2.22 | \$2.20 | \$2.17 | \$2.14 | \$2.15 | \$2.10 | \$2.01 | |
| Meat products..... | 2.46 | 2.48 | 2.48 | 2.49 | 2.47 | 2.50 | 2.52 | 2.52 | 2.49 | 2.48 | 2.46 | 2.47 | 2.42 | 2.36 | 2.26 | |
| Dairy products..... | 2.21 | 2.22 | 2.20 | 2.19 | 2.19 | 2.19 | 2.19 | 2.19 | 2.18 | 2.17 | 2.17 | 2.19 | 2.15 | 2.07 | 1.95 | |
| Canning and preserving..... | 1.85 | 1.84 | 1.87 | 1.89 | 1.92 | 1.88 | 1.85 | 1.84 | 1.84 | 1.78 | 1.80 | 1.77 | 1.81 | 1.78 | 1.67 | |
| Grain-mill products..... | 2.28 | 2.27 | 2.26 | 2.25 | 2.27 | 2.26 | 2.25 | 2.26 | 2.26 | 2.26 | 2.26 | 2.22 | 2.21 | 2.13 | 2.05 | |
| Bakery products..... | 2.29 | 2.28 | 2.29 | 2.26 | 2.24 | 2.24 | 2.25 | 2.23 | 2.23 | 2.22 | 2.21 | 2.21 | 2.19 | 2.07 | 1.97 | |
| Sugar..... | 2.46 | 2.51 | 2.48 | 2.50 | 2.43 | 2.46 | 2.42 | 2.31 | 2.01 | 2.01 | 2.19 | 2.42 | 2.40 | 2.16 | 2.03 | |
| Confectionery and related products..... | 1.89 | 1.90 | 1.90 | 1.90 | 1.88 | 1.85 | 1.84 | 1.84 | 1.80 | 1.79 | 1.79 | 1.83 | 1.81 | 1.74 | 1.67 | |
| Beverages..... | 2.54 | 2.59 | 2.56 | 2.53 | 2.54 | 2.53 | 2.49 | 2.49 | 2.49 | 2.50 | 2.48 | 2.47 | 2.47 | 2.39 | 2.30 | |
| Miscellaneous food products..... | 2.19 | 2.17 | 2.14 | 2.16 | 2.17 | 2.18 | 2.18 | 2.19 | 2.17 | 2.16 | 2.14 | 2.14 | 2.11 | 2.03 | 1.96 | |
| Tobacco manufactures..... | 1.76 | 1.88 | 1.90 | 1.89 | 1.88 | 1.81 | 1.79 | 1.76 | 1.78 | 1.74 | 1.61 | 1.57 | 1.71 | 1.66 | 1.60 | |
| Cigarettes..... | 2.15 | 2.15 | 2.18 | 2.18 | 2.18 | 2.12 | 2.12 | 2.11 | 2.13 | 2.13 | 2.10 | 2.09 | 2.05 | 2.00 | 1.91 | |
| Cigars..... | 1.49 | 1.47 | 1.48 | 1.48 | 1.46 | 1.46 | 1.46 | 1.46 | 1.47 | 1.49 | 1.46 | 1.44 | 1.44 | 1.41 | 1.37 | |
| Tobacco and snuff..... | 1.89 | 1.87 | 1.89 | 1.90 | 1.91 | 1.88 | 1.85 | 1.86 | 1.85 | 1.85 | 1.86 | 1.85 | 1.84 | 1.74 | 1.67 | |
| Tobacco stemming and redrying..... | 1.38 | 1.64 | 1.70 | 1.68 | 1.66 | 1.50 | 1.46 | 1.44 | 1.47 | 1.32 | 1.28 | 1.21 | 1.37 | 1.33 | 1.26 | |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | | | 1960 | | | | | Annual average | |
|--|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | | | | | | | | | | | | | | | | | |
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | | | |
| Average weekly earnings | | | | | | | | | | | | | | | | | |
| Nondurable goods—Continued | | | | | | | | | | | | | | | | | |
| Textile-mill products..... | \$66.26 | \$65.44 | \$65.93 | \$64.78 | \$63.96 | \$63.24 | \$62.76 | \$61.86 | \$61.88 | \$63.18 | \$63.24 | \$62.05 | \$64.31 | \$63.43 | \$58.29 | \$58.29 | |
| Scouring and combing plants..... | 75.95 | 74.90 | 77.26 | 75.78 | 74.87 | 72.10 | 70.18 | 71.28 | 66.96 | 66.78 | 67.82 | 67.25 | 72.45 | 72.16 | 64.96 | 64.96 | |
| Yarn and thread mills..... | 61.66 | 60.89 | 61.35 | 60.28 | 59.06 | 57.53 | 56.70 | 55.12 | 56.10 | 57.53 | 56.63 | 56.02 | 58.29 | 58.95 | 52.36 | 52.36 | |
| Broad-woven fabric mills..... | 65.93 | 64.72 | 64.88 | 64.06 | 63.04 | 62.40 | 61.69 | 61.53 | 62.17 | 62.65 | 62.88 | 61.92 | 64.88 | 63.29 | 66.28 | 66.28 | |
| Narrow fabrics and smallwares..... | 68.40 | 67.83 | 68.45 | 67.26 | 66.86 | 66.07 | 65.90 | 64.24 | 63.46 | 65.07 | 64.51 | 64.18 | 66.80 | 65.53 | 60.37 | 60.37 | |
| Knitting mills..... | 60.21 | 58.91 | 59.60 | 58.37 | 57.13 | 57.29 | 56.78 | 54.57 | 54.57 | 57.38 | 57.99 | 57.15 | 58.29 | 57.51 | 54.78 | 54.78 | |
| Dyeing and finishing textiles..... | 74.64 | 73.75 | 76.50 | 74.82 | 74.11 | 73.57 | 74.52 | 69.92 | 69.70 | 71.86 | 71.20 | 67.94 | 70.58 | 71.48 | 66.83 | 66.83 | |
| Carpets, rugs, other floor coverings..... | 64.35 | 61.19 | 63.78 | 60.99 | 60.39 | 78.59 | 78.59 | 78.20 | 78.40 | 79.56 | 79.67 | 79.17 | 80.75 | 81.51 | 77.80 | 77.80 | |
| Hats (except cloth and millinery)..... | 66.29 | 64.43 | 66.70 | 64.53 | 63.41 | 59.62 | 61.01 | 62.39 | 57.80 | 61.32 | 59.07 | 57.59 | 60.80 | 61.71 | 58.74 | 58.74 | |
| Miscellaneous textile goods..... | 70.35 | 77.59 | 79.54 | 77.18 | 76.59 | 75.62 | 73.70 | 75.03 | 73.91 | 75.62 | 76.78 | 75.64 | 75.58 | 73.71 | 68.95 | 68.95 | |
| Apparel and other finished textile products | | | | | | | | | | | | | | | | | |
| Men's and boys' suits and coats..... | 59.41 | 57.72 | 56.41 | 55.62 | 56.29 | 57.12 | 58.51 | 54.70 | 52.44 | 55.77 | 56.45 | 55.93 | 57.62 | 55.63 | 53.48 | 53.48 | |
| Men's and boys' furnishings and work clothing..... | 69.29 | 68.61 | 67.97 | 67.55 | 65.36 | 66.39 | 66.84 | 66.91 | 62.78 | 67.26 | 69.52 | 69.72 | 72.38 | 62.47 | 60.37 | 60.37 | |
| Women's outerwear..... | 50.67 | 49.21 | 48.31 | 47.39 | 46.95 | 47.57 | 46.90 | 46.10 | 45.28 | 46.42 | 47.75 | 48.55 | 49.37 | 48.76 | 46.06 | 46.06 | |
| Women's, children's undergarments..... | 64.40 | 62.63 | 58.28 | 57.93 | 61.41 | 62.12 | 59.31 | 66.70 | 53.63 | 58.45 | 57.85 | 57.70 | 61.08 | 59.51 | 57.63 | 57.63 | |
| Millinery..... | 54.38 | 52.34 | 52.42 | 52.20 | 52.78 | 53.00 | 51.77 | 51.48 | 49.39 | 52.99 | 53.65 | 52.05 | 52.11 | 51.29 | 49.69 | 49.69 | |
| Children's outerwear..... | 70.25 | 72.31 | 64.26 | 54.72 | 61.52 | 70.85 | 74.94 | 63.03 | 53.94 | 58.74 | 69.52 | 67.04 | 69.48 | 62.93 | 54.05 | 54.05 | |
| Miscellaneous apparel and accessories..... | 53.44 | 54.31 | 54.02 | 51.98 | 50.11 | 52.27 | 53.78 | 52.41 | 46.48 | 50.84 | 51.94 | 50.22 | 53.42 | 51.10 | 50.23 | 50.23 | |
| Other fabricated textile products..... | 55.42 | 53.07 | 53.80 | 53.13 | 53.58 | 52.27 | 52.54 | 50.27 | 52.33 | 55.20 | 53.13 | 53.95 | 52.54 | 50.78 | 50.78 | 50.78 | |
| 68.16 | 64.51 | 65.45 | 64.05 | 65.23 | 64.63 | 62.79 | 62.36 | 62.53 | 67.03 | 66.30 | 63.08 | 61.56 | 59.59 | 58.58 | 58.58 | 58.58 | |
| Average weekly hours | | | | | | | | | | | | | | | | | |
| Textile-mill products | | | | | | | | | | | | | | | | | |
| Scouring and combing plants..... | 40.4 | 39.9 | 40.2 | 39.5 | 39.0 | 38.8 | 38.5 | 38.0 | 38.2 | 39.0 | 38.8 | 38.3 | 39.7 | 40.4 | 38.5 | 38.5 | |
| Yarn and thread mills..... | 43.4 | 42.8 | 43.9 | 43.3 | 42.3 | 41.2 | 40.1 | 40.5 | 38.7 | 38.6 | 39.2 | 39.1 | 41.4 | 42.2 | 40.6 | 40.6 | |
| Broad-woven fabric mills..... | 40.3 | 39.8 | 40.1 | 39.4 | 38.6 | 38.1 | 37.3 | 36.5 | 37.4 | 38.1 | 37.5 | 37.1 | 38.6 | 40.1 | 37.4 | 37.4 | |
| Narrow fabrics and smallwares..... | 40.7 | 40.2 | 40.3 | 39.5 | 39.4 | 39.0 | 38.8 | 38.7 | 39.1 | 39.4 | 39.3 | 38.7 | 40.3 | 41.1 | 39.6 | 39.6 | |
| Knitting mills..... | 39.1 | 38.5 | 38.7 | 37.9 | 37.1 | 37.2 | 37.1 | 35.9 | 35.9 | 37.5 | 37.9 | 37.6 | 38.6 | 38.5 | 37.5 | 37.5 | |
| Dyeing and finishing textiles..... | 41.7 | 41.2 | 42.5 | 41.8 | 41.4 | 41.1 | 41.4 | 39.5 | 39.6 | 40.6 | 40.0 | 38.6 | 40.1 | 41.8 | 40.5 | 40.5 | |
| Carpets, rugs, other floor coverings..... | 42.6 | 40.8 | 42.1 | 40.7 | 40.6 | 40.3 | 40.3 | 40.1 | 40.0 | 40.8 | 40.8 | 40.6 | 41.2 | 41.8 | 40.5 | 40.5 | |
| Hats (except cloth and millinery)..... | 38.1 | 37.9 | 37.9 | 37.3 | 37.3 | 35.7 | 36.1 | 36.7 | 34.2 | 36.5 | 35.8 | 34.9 | 37.3 | 36.3 | 35.6 | 35.6 | |
| Miscellaneous textile goods..... | 40.9 | 40.2 | 41.0 | 40.2 | 40.1 | 39.8 | 39.2 | 39.7 | 38.9 | 39.8 | 40.2 | 39.6 | 40.2 | 40.5 | 39.4 | 39.4 | |
| Apparel and other finished textile products | | | | | | | | | | | | | | | | | |
| Men's and boys' suits and coats..... | 36.9 | 36.3 | 35.7 | 35.2 | 35.4 | 35.7 | 35.1 | 34.4 | 33.4 | 35.3 | 35.5 | 35.4 | 36.7 | 36.6 | 35.4 | 35.4 | |
| Men's and boys' furnishings and work clothing..... | 35.9 | 36.3 | 35.4 | 35.0 | 34.4 | 34.6 | 35.1 | 35.4 | 33.2 | 35.4 | 36.4 | 36.5 | 37.7 | 37.2 | 34.3 | 34.3 | |
| Women's outerwear..... | 38.1 | 37.0 | 36.6 | 35.9 | 35.3 | 35.5 | 35.0 | 34.4 | 34.8 | 34.9 | 35.9 | 36.5 | 37.4 | 37.8 | 36.0 | 36.0 | |
| Women's, children's undergarments..... | 35.0 | 34.6 | 33.3 | 33.1 | 34.5 | 34.9 | 33.7 | 32.4 | 31.0 | 33.4 | 32.5 | 32.6 | 34.9 | 34.6 | 34.1 | 34.1 | |
| Millinery..... | 37.5 | 36.6 | 36.4 | 36.0 | 36.4 | 36.3 | 35.7 | 35.5 | 34.3 | 36.8 | 37.0 | 36.4 | 36.7 | 36.9 | 36.2 | 36.2 | |
| Children's outerwear..... | 36.4 | 35.1 | 34.0 | 29.9 | 32.9 | 36.9 | 37.8 | 33.0 | 29.8 | 32.1 | 36.4 | 35.1 | 36.0 | 34.2 | 35.0 | 35.0 | |
| Miscellaneous apparel and accessories..... | 36.6 | 37.2 | 37.0 | 35.6 | 34.8 | 35.8 | 36.8 | 35.9 | 32.5 | 35.8 | 36.0 | 34.4 | 37.1 | 36.5 | 36.4 | 36.4 | |
| Other fabricated textile products..... | 37.7 | 36.1 | 36.6 | 35.9 | 35.9 | 36.2 | 35.8 | 35.5 | 34.9 | 35.6 | 36.8 | 35.9 | 36.7 | 37.0 | 36.0 | 36.0 | |
| 39.4 | 38.4 | 38.5 | 37.9 | 38.6 | 38.2 | 37.6 | 36.9 | 37.0 | 39.2 | 39.0 | 38.0 | 35.0 | 38.2 | 38.2 | 37.6 | 37.6 | |
| Average hourly earnings | | | | | | | | | | | | | | | | | |
| Textile-mill products | | | | | | | | | | | | | | | | | |
| Scouring and combing plants..... | \$1.64 | \$1.64 | \$1.64 | \$1.64 | \$1.64 | \$1.63 | \$1.63 | \$1.62 | \$1.62 | \$1.62 | \$1.63 | \$1.62 | \$1.62 | \$1.57 | \$1.51 | \$1.51 | |
| Yarn and thread mills..... | 1.75 | 1.75 | 1.76 | 1.75 | 1.77 | 1.75 | 1.75 | 1.76 | 1.73 | 1.75 | 1.73 | 1.72 | 1.75 | 1.71 | 1.60 | 1.60 | |
| Broad-woven fabric mills..... | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.31 | 1.32 | 1.31 | 1.30 | 1.33 | 1.31 | 1.31 | 1.31 | 1.27 | 1.14 | 1.14 | |
| Narrow fabrics and smallwares..... | 1.62 | 1.61 | 1.61 | 1.61 | 1.60 | 1.60 | 1.59 | 1.59 | 1.59 | 1.59 | 1.60 | 1.60 | 1.61 | 1.54 | 1.45 | 1.45 | |
| Knitting mills..... | 1.71 | 1.70 | 1.69 | 1.69 | 1.68 | 1.66 | 1.66 | 1.66 | 1.67 | 1.69 | 1.68 | 1.68 | 1.67 | 1.61 | 1.44 | 1.44 | |
| Dyeing and finishing textiles..... | 1.54 | 1.53 | 1.54 | 1.54 | 1.54 | 1.54 | 1.53 | 1.52 | 1.52 | 1.53 | 1.53 | 1.52 | 1.51 | 1.49 | 1.40 | 1.40 | |
| Carpets, rugs, other floor coverings..... | 1.79 | 1.79 | 1.80 | 1.79 | 1.79 | 1.79 | 1.80 | 1.77 | 1.76 | 1.77 | 1.78 | 1.76 | 1.76 | 1.71 | 1.65 | 1.65 | |
| Hats (except cloth and millinery)..... | 1.98 | 1.99 | 1.99 | 1.99 | 1.98 | 1.96 | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 | 1.89 | 1.89 | |
| Miscellaneous textile goods..... | 1.74 | 1.70 | 1.76 | 1.73 | 1.70 | 1.67 | 1.69 | 1.70 | 1.69 | 1.68 | 1.65 | 1.65 | 1.63 | 1.70 | 1.65 | 1.65 | |
| 1.94 | 1.93 | 1.94 | 1.92 | 1.91 | 1.90 | 1.88 | 1.89 | 1.90 | 1.90 | 1.91 | 1.91 | 1.88 | 1.82 | 1.78 | 1.78 | 1.78 | |
| Apparel and other finished textile products | | | | | | | | | | | | | | | | | |
| Men's and boys' suits and coats..... | 1.61 | 1.59 | 1.58 | 1.58 | 1.59 | 1.60 | 1.59 | 1.59 | 1.57 | 1.58 | 1.59 | 1.58 | 1.57 | 1.52 | 1.41 | 1.41 | |
| Men's and boys' furnishings and work clothing..... | 1.93 | 1.89 | 1.92 | 1.93 | 1.90 | 1.89 | 1.89 | 1.89 | 1.89 | 1.90 | 1.91 | 1.91 | 1.92 | 1.78 | 1.76 | 1.76 | |
| Women's outerwear..... | 1.33 | 1.33 | 1.32 | 1.32 | 1.33 | 1.34 | 1.34 | 1.34 | 1.32 | 1.33 | 1.33 | 1.33 | 1.32 | 1.29 | 1.29 | 1.29 | |
| Women's, children's undergarments..... | 1.84 | 1.81 | 1.75 | 1.75 | 1.78 | 1.78 | 1.76 | 1.75 | 1.73 | 1.78 | 1.78 | 1.77 | 1.75 | 1.72 | 1.69 | 1.69 | |
| Millinery..... | 1.45 | 1.43 | 1.44 | 1.45 | 1.45 | 1.46 | 1.45 | 1.45 | 1.44 | 1.44 | 1.45 | 1.45 | 1.42 | 1.39 | 1.37 | 1.37 | |
| Children's outerwear..... | 1.93 | 2.06 | 1.89 | 1.83 | 1.87 | 1.92 | 1.98 | 1.91 | 1.81 | 1.83 | 1.91 | 1.91 | 1.93 | 1.84 | 1.83 | 1.83 | |
| Miscellaneous apparel and accessories..... | 1.46 | 1.46 | 1.46 | 1.46 | 1.44 | 1.46 | 1.46 | 1.46 | 1.43 | 1.42 | 1.44 | 1.46 | 1.44 | 1.40 | 1.38 | 1.38 | |
| Other fabricated textile products..... | 1.47 | 1.47 | 1.47 | 1.48 | 1.48 | 1.48 | 1.46 | 1.48 | 1.47 | 1.47 | 1.50 | 1.48 | 1.47 | 1.43 | 1.41 | 1.41 | |
| 1.73 | 1.68 | 1.70 | 1.69 | 1.69 | 1.67 | 1.67 | 1.67 | 1.69 | 1.69 | 1.71 | 1.70 | 1.66 | 1.62 | 1.56 | 1.52 | 1.52 | |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|---|-------------------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Average weekly earnings | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Nondurable goods—Continued</i> | | | | | | | | | | | | | | | |
| Paper and allied products..... | \$102.15 | \$101.91 | \$101.24 | \$98.75 | \$98.33 | \$96.98 | \$96.74 | \$96.28 | \$95.35 | \$96.37 | \$97.71 | \$98.14 | \$97.75 | \$97.33 | \$88.58 |
| Pulp, paper, and paperboard mills..... | 110.88 | 111.13 | 109.75 | 107.88 | 107.69 | 105.78 | 105.83 | 105.29 | 105.47 | 105.53 | 106.76 | 107.20 | 106.82 | 106.57 | 96.10 |
| Paperboard containers and boxes..... | 96.50 | 94.95 | 95.40 | 91.43 | 91.24 | 89.51 | 88.66 | 88.22 | 85.34 | 88.34 | 91.10 | 91.30 | 90.69 | 88.90 | 82.41 |
| Other paper and allied products..... | 90.49 | 90.27 | 88.99 | 87.94 | 87.10 | 87.31 | 86.48 | 85.44 | 85.01 | 85.68 | 85.06 | 85.08 | 85.90 | 85.49 | 78.96 |
| Printing, publishing, and allied industries..... | 108.59 | 107.35 | 107.35 | 107.07 | 106.60 | 106.88 | 105.94 | 106.22 | 106.81 | 106.96 | 107.14 | 108.08 | 106.69 | 106.20 | 97.90 |
| Newspapers..... | 112.96 | 112.64 | 113.28 | 113.96 | 112.29 | 110.63 | 110.28 | 110.28 | 115.16 | 114.16 | 113.49 | 113.49 | 110.14 | 111.47 | 103.43 |
| Periodicals..... | 120.22 | 115.59 | 113.81 | 109.25 | 108.81 | 111.56 | 112.28 | 114.21 | 130.92 | 115.59 | 117.83 | 125.38 | 119.19 | 120.10 | 102.97 |
| Books..... | 100.04 | 98.17 | 98.25 | 97.61 | 95.90 | 95.20 | 96.00 | 93.93 | 91.10 | 93.62 | 93.77 | 93.53 | 97.17 | 92.97 | 88.90 |
| Commercial printing..... | 107.25 | 105.88 | 104.94 | 104.83 | 105.11 | 106.74 | 104.72 | 106.35 | 105.54 | 106.11 | 106.92 | 108.80 | 105.72 | 105.18 | 97.22 |
| Lithographing..... | 113.65 | 111.15 | 110.65 | 109.03 | 110.21 | 111.28 | 108.47 | 108.47 | 106.30 | 107.25 | 107.64 | 110.48 | 112.16 | 109.97 | 98.81 |
| Greeting cards..... | 68.97 | 70.69 | 72.58 | 73.60 | 76.38 | 75.44 | 75.08 | 76.24 | 71.00 | 73.68 | 74.40 | 73.66 | 71.55 | 73.30 | 67.08 |
| Bookbinding and related industries..... | 85.97 | 84.92 | 85.69 | 84.42 | 83.82 | 84.70 | 85.14 | 85.03 | 81.99 | 83.71 | 83.93 | 82.56 | 82.64 | 82.60 | 74.86 |
| Miscellaneous publishing and printing services..... | 126.10 | 125.13 | 123.39 | 122.18 | 120.40 | 121.59 | 120.90 | 119.11 | 115.44 | 118.37 | 117.66 | 118.87 | 116.73 | 116.81 | 110.75 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Paper and allied products..... | 43.1 | 43.0 | 42.9 | 42.2 | 42.2 | 41.8 | 41.7 | 41.8 | 41.1 | 41.9 | 42.3 | 42.3 | 42.5 | 42.8 | 41.9 |
| Pulp, paper, and paperboard mills..... | 44.0 | 44.1 | 43.9 | 43.5 | 43.6 | 43.0 | 42.9 | 42.8 | 42.7 | 42.9 | 43.4 | 43.4 | 43.6 | 43.9 | 42.9 |
| Paperboard containers and boxes..... | 42.7 | 42.2 | 42.4 | 41.0 | 41.1 | 40.5 | 40.3 | 40.1 | 39.1 | 40.9 | 41.6 | 41.5 | 41.6 | 41.8 | 41.0 |
| Other paper and allied products..... | 41.7 | 41.6 | 41.2 | 40.9 | 40.7 | 40.8 | 40.6 | 40.3 | 40.1 | 40.8 | 40.7 | 40.8 | 41.1 | 41.5 | 40.7 |
| Printing, publishing, and allied industries..... | 38.1 | 37.8 | 37.8 | 37.7 | 37.7 | 37.9 | 37.7 | 37.8 | 37.7 | 38.2 | 38.4 | 38.6 | 38.3 | 38.3 | 37.8 |
| Newspapers..... | 35.3 | 36.2 | 35.4 | 35.5 | 35.2 | 34.9 | 34.9 | 34.9 | 36.1 | 35.9 | 35.8 | 35.8 | 35.3 | 35.5 | 35.3 |
| Periodicals..... | 41.6 | 40.7 | 40.5 | 39.3 | 39.0 | 39.7 | 40.1 | 40.5 | 39.9 | 40.7 | 41.2 | 42.5 | 41.1 | 40.7 | 39.3 |
| Books..... | 40.5 | 40.4 | 40.1 | 40.5 | 40.0 | 40.0 | 40.0 | 39.8 | 38.6 | 39.5 | 39.9 | 39.8 | 41.0 | 39.7 | 39.0 |
| Commercial printing..... | 39.0 | 38.5 | 38.3 | 38.4 | 38.5 | 39.1 | 38.5 | 39.1 | 38.8 | 39.3 | 39.6 | 40.0 | 39.3 | 39.6 | 39.2 |
| Lithographing..... | 39.6 | 39.0 | 39.1 | 38.8 | 39.5 | 39.6 | 38.6 | 38.6 | 38.1 | 39.0 | 39.0 | 39.6 | 40.2 | 39.7 | 39.6 |
| Greeting cards..... | 36.3 | 37.8 | 38.2 | 38.8 | 38.0 | 38.1 | 38.5 | 38.7 | 36.6 | 39.4 | 40.0 | 39.6 | 39.1 | 38.5 | 38.3 |
| Bookbinding and related industries..... | 38.9 | 38.6 | 38.6 | 38.2 | 38.1 | 38.5 | 38.7 | 38.3 | 37.1 | 38.4 | 38.6 | 38.4 | 38.8 | 38.7 | 38.0 |
| Miscellaneous publishing and printing services..... | 38.8 | 38.5 | 38.2 | 38.3 | 38.1 | 38.6 | 38.4 | 38.3 | 37.0 | 38.4 | 38.2 | 38.1 | 37.9 | 38.6 | 37.8 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Paper and allied products..... | \$2.37 | \$2.37 | \$2.36 | \$2.34 | \$2.33 | \$2.32 | \$2.32 | \$2.32 | \$2.32 | \$2.30 | \$2.31 | \$2.32 | \$2.30 | \$2.20 | \$2.12 |
| Pulp, paper, and paperboard mills..... | 2.52 | 2.52 | 2.50 | 2.48 | 2.47 | 2.46 | 2.46 | 2.46 | 2.47 | 2.46 | 2.46 | 2.47 | 2.45 | 2.34 | 2.24 |
| Paperboard containers and boxes..... | 2.26 | 2.25 | 2.25 | 2.23 | 2.22 | 2.21 | 2.20 | 2.20 | 2.18 | 2.16 | 2.19 | 2.20 | 2.18 | 2.10 | 2.01 |
| Other paper and allied products..... | 2.17 | 2.17 | 2.16 | 2.15 | 2.14 | 2.14 | 2.13 | 2.12 | 2.12 | 2.10 | 2.09 | 2.10 | 2.09 | 2.01 | 1.94 |
| Printing, publishing, and allied industries..... | 2.85 | 2.84 | 2.84 | 2.84 | 2.83 | 2.82 | 2.81 | 2.81 | 2.82 | 2.80 | 2.79 | 2.80 | 2.77 | 2.70 | 2.59 |
| Newspapers..... | 3.20 | 3.20 | 3.20 | 3.21 | 3.19 | 3.17 | 3.16 | 3.16 | 3.19 | 3.18 | 3.17 | 3.17 | 3.12 | 3.05 | 2.93 |
| Periodicals..... | 2.89 | 2.84 | 2.81 | 2.78 | 2.79 | 2.81 | 2.80 | 2.82 | 2.78 | 2.84 | 2.86 | 2.95 | 2.90 | 2.78 | 2.62 |
| Books..... | 2.47 | 2.43 | 2.45 | 2.41 | 2.39 | 2.38 | 2.40 | 2.36 | 2.36 | 2.37 | 2.35 | 2.35 | 2.37 | 2.28 | 2.20 |
| Commercial printing..... | 2.75 | 2.75 | 2.74 | 2.73 | 2.73 | 2.73 | 2.72 | 2.72 | 2.72 | 2.70 | 2.70 | 2.72 | 2.69 | 2.60 | 2.48 |
| Lithographing..... | 2.87 | 2.85 | 2.83 | 2.81 | 2.79 | 2.81 | 2.81 | 2.81 | 2.79 | 2.75 | 2.78 | 2.79 | 2.79 | 2.68 | 2.54 |
| Greeting cards..... | 1.90 | 1.87 | 1.90 | 2.00 | 2.01 | 1.98 | 1.96 | 1.97 | 1.94 | 1.87 | 1.86 | 1.86 | 1.83 | 1.82 | 1.73 |
| Bookbinding and related industries..... | 2.21 | 2.20 | 2.22 | 2.21 | 2.20 | 2.20 | 2.20 | 2.22 | 2.21 | 2.18 | 2.18 | 2.16 | 2.13 | 2.08 | 1.97 |
| Miscellaneous publishing and printing services..... | 3.25 | 3.25 | 3.23 | 3.19 | 3.16 | 3.15 | 3.15 | 3.11 | 3.12 | 3.08 | 3.08 | 3.12 | 3.08 | 3.01 | 2.93 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|---------|
| | Aug. 2 | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Average weekly earnings | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| Nondurable goods—Continued | | | | | | | | | | | | | | | |
| Chemicals and allied products..... | \$108.99 | \$109.15 | \$109.10 | \$106.14 | \$105.32 | \$104.90 | \$104.30 | \$104.81 | \$104.20 | \$105.15 | \$104.24 | \$104.90 | \$104.90 | \$100.02 | \$94.48 |
| Industrial inorganic chemicals..... | 120.51 | 120.35 | 120.25 | 117.96 | 117.58 | 116.88 | 115.62 | 117.58 | 116.75 | 117.03 | 117.16 | 117.16 | 117.16 | 116.05 | 104.70 |
| Industrial organic chemicals..... | 114.54 | 115.51 | 115.64 | 113.16 | 112.48 | 111.25 | 110.98 | 110.98 | 111.25 | 111.65 | 110.16 | 110.97 | 110.42 | 106.81 | 100.04 |
| Drugs and medicines..... | 98.16 | 97.36 | 97.77 | 96.00 | 95.44 | 95.09 | 95.58 | 95.18 | 93.53 | 95.75 | 94.30 | 95.18 | 94.02 | 90.58 | 88.88 |
| Soap, cleaning and polishing preparations..... | 118.58 | 117.32 | 119.71 | 113.44 | 113.16 | 112.48 | 111.38 | 111.93 | 100.80 | 112.19 | 113.30 | 112.19 | 114.93 | 105.47 | 100.86 |
| Paints, pigments, and fillers..... | 104.39 | 105.16 | 105.50 | 104.33 | 102.61 | 101.50 | 99.85 | 100.50 | 100.00 | 101.34 | 101.24 | 100.78 | 101.27 | 98.29 | 93.25 |
| Gum and wood chemicals..... | 91.14 | 92.20 | 89.45 | 80.67 | 86.99 | 87.99 | 88.41 | 91.57 | 89.46 | 88.20 | 88.41 | 90.09 | 88.62 | 83.36 | 80.45 |
| Fertilizers..... | 83.40 | 83.62 | 82.10 | 80.56 | 79.30 | 78.17 | 80.89 | 81.94 | 82.03 | 80.61 | 80.94 | 81.54 | 80.57 | 78.12 | 74.03 |
| Vegetable and animal oils and fats..... | 96.12 | 97.66 | 95.23 | 92.84 | 89.82 | 88.54 | 88.91 | 91.35 | 87.81 | 90.09 | 90.94 | 90.35 | 90.50 | 85.44 | 82.21 |
| Miscellaneous chemicals..... | 100.28 | 99.06 | 99.39 | 97.65 | 97.61 | 97.61 | 97.12 | 97.12 | 95.44 | 97.27 | 96.22 | 95.90 | 98.18 | 91.68 | 87.02 |
| Products of petroleum and coal..... | 123.32 | 127.07 | 126.16 | 123.82 | 124.23 | 122.31 | 120.80 | 124.42 | 119.07 | 117.97 | 117.63 | 120.60 | 117.62 | 117.38 | 110.97 |
| Petroleum refining..... | 127.48 | 131.87 | 130.60 | 128.84 | 129.47 | 127.48 | 126.36 | 129.90 | 123.32 | 122.91 | 121.80 | 124.53 | 129.90 | 121.29 | 114.90 |
| Coke, other petroleum and coal products..... | 110.88 | 112.20 | 112.89 | 108.32 | 105.97 | 103.84 | 99.13 | 104.40 | 102.96 | 102.81 | 104.70 | 108.52 | 107.43 | 105.83 | 97.28 |
| Rubber products..... | 106.49 | 107.04 | 103.86 | 101.89 | 100.47 | 97.66 | 97.27 | 98.81 | 99.58 | 99.57 | 101.49 | 98.28 | 100.15 | 101.60 | 92.59 |
| Tires and inner tubes..... | 127.51 | 130.31 | 122.28 | 115.58 | 115.20 | 111.53 | 110.78 | 113.54 | 118.59 | 114.00 | 117.00 | 112.40 | 114.66 | 120.01 | 96.04 |
| Rubber footwear..... | 85.75 | 86.00 | 82.89 | 80.24 | 80.65 | 82.92 | 85.60 | 82.32 | 70.00 | 82.16 | 82.59 | 79.18 | 81.40 | 79.19 | 176.62 |
| Other rubber products..... | 96.29 | 94.47 | 95.18 | 95.00 | 92.80 | 90.62 | 90.18 | 91.01 | 89.40 | 92.17 | 93.73 | 92.10 | 92.75 | 92.99 | 84.59 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Chemicals and allied products..... | 41.6 | 41.5 | 41.8 | 41.3 | 41.3 | 41.3 | 40.9 | 41.1 | 40.9 | 41.4 | 41.2 | 41.3 | 41.8 | 41.5 | 40.9 |
| Industrial inorganic chemicals..... | 41.7 | 41.5 | 41.9 | 41.4 | 41.4 | 41.3 | 41.0 | 41.4 | 41.4 | 41.5 | 41.4 | 41.4 | 41.4 | 41.8 | 40.9 |
| Industrial organic chemicals..... | 41.5 | 41.7 | 41.9 | 41.3 | 41.2 | 40.9 | 40.8 | 40.8 | 40.9 | 41.2 | 40.8 | 41.1 | 41.2 | 41.4 | 40.5 |
| Drugs and medicines..... | 40.9 | 40.4 | 40.4 | 40.0 | 40.1 | 40.5 | 40.5 | 40.5 | 39.8 | 40.4 | 40.3 | 40.5 | 40.7 | 40.8 | 40.7 |
| Soap, cleaning and polishing preparations..... | 42.2 | 41.9 | 42.6 | 41.1 | 41.3 | 41.2 | 40.8 | 41.0 | 40.7 | 41.4 | 41.5 | 41.4 | 42.1 | 41.2 | 41.0 |
| Paints, pigments, and fillers..... | 41.1 | 41.4 | 41.7 | 41.4 | 41.0 | 40.6 | 40.1 | 40.2 | 40.0 | 40.7 | 40.7 | 40.8 | 41.0 | 41.3 | 40.9 |
| Gum and wood chemicals..... | 42.0 | 42.1 | 41.8 | 41.9 | 41.2 | 41.9 | 41.9 | 43.4 | 42.6 | 41.8 | 41.9 | 43.5 | 42.4 | 42.1 | 41.9 |
| Fertilizers..... | 41.7 | 41.6 | 42.1 | 42.4 | 43.1 | 45.2 | 42.8 | 42.9 | 42.5 | 42.6 | 42.6 | 42.3 | 42.3 | 43.4 | 42.8 |
| Vegetable and animal oils and fats..... | 44.5 | 44.5 | 44.6 | 44.0 | 43.6 | 43.4 | 43.3 | 45.0 | 44.8 | 45.2 | 45.4 | 45.4 | 43.9 | 44.5 | 44.2 |
| Miscellaneous chemicals..... | 41.1 | 40.6 | 40.9 | 40.6 | 40.5 | 40.5 | 40.3 | 40.3 | 39.6 | 40.7 | 40.6 | 40.5 | 40.5 | 40.7 | 40.1 |
| Products of petroleum and coal..... | 40.9 | 41.8 | 41.5 | 41.0 | 41.0 | 40.5 | 40.0 | 41.2 | 40.5 | 40.4 | 40.7 | 41.3 | 40.7 | 40.9 | 40.8 |
| Petroleum refining..... | 40.6 | 41.6 | 41.2 | 40.9 | 41.1 | 40.6 | 40.5 | 41.5 | 40.7 | 40.7 | 40.6 | 41.1 | 40.3 | 40.7 | 40.6 |
| Coke, other petroleum and coal products..... | 42.0 | 42.5 | 42.6 | 41.5 | 40.6 | 39.9 | 38.0 | 40.0 | 39.6 | 39.5 | 40.9 | 41.0 | 41.8 | 41.5 | 40.2 |
| Rubber products..... | 40.8 | 40.7 | 40.1 | 39.8 | 39.4 | 38.6 | 38.6 | 38.9 | 38.9 | 39.2 | 39.8 | 39.0 | 39.0 | 39.0 | 39.4 |
| Tires and inner tubes..... | 41.0 | 41.5 | 39.7 | 38.4 | 38.4 | 37.3 | 37.3 | 38.1 | 39.4 | 38.2 | 39.0 | 38.1 | 39.0 | 41.1 | 38.7 |
| Rubber footwear..... | 39.7 | 40.0 | 39.1 | 40.3 | 40.3 | 39.3 | 40.0 | 39.2 | 37.8 | 39.5 | 39.9 | 39.2 | 40.1 | 40.2 | 39.7 |
| Other rubber products..... | 40.8 | 40.2 | 40.5 | 40.6 | 40.0 | 39.4 | 39.2 | 39.4 | 38.7 | 39.9 | 40.4 | 39.7 | 40.5 | 41.7 | 39.9 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Chemicals and allied products..... | \$2.62 | \$2.63 | \$2.61 | \$2.57 | \$2.55 | \$2.54 | \$2.55 | \$2.55 | \$2.55 | \$2.54 | \$2.53 | \$2.54 | \$2.54 | \$2.41 | \$2.31 |
| Industrial inorganic chemicals..... | 2.89 | 2.90 | 2.87 | 2.85 | 2.84 | 2.83 | 2.82 | 2.84 | 2.82 | 2.82 | 2.83 | 2.83 | 2.81 | 2.69 | 2.66 |
| Industrial organic chemicals..... | 2.76 | 2.77 | 2.76 | 2.74 | 2.73 | 2.72 | 2.72 | 2.72 | 2.72 | 2.71 | 2.70 | 2.70 | 2.66 | 2.55 | 2.47 |
| Drugs and medicines..... | 2.40 | 2.41 | 2.42 | 2.40 | 2.38 | 2.37 | 2.36 | 2.35 | 2.35 | 2.37 | 2.34 | 2.35 | 2.31 | 2.22 | 2.11 |
| Soap, cleaning and polishing preparations..... | 2.81 | 2.80 | 2.81 | 2.76 | 2.74 | 2.73 | 2.73 | 2.73 | 2.70 | 2.71 | 2.73 | 2.71 | 2.73 | 2.56 | 2.46 |
| Paints, pigments, and fillers..... | 2.54 | 2.54 | 2.53 | 2.52 | 2.51 | 2.50 | 2.49 | 2.50 | 2.50 | 2.49 | 2.49 | 2.47 | 2.47 | 2.38 | 2.28 |
| Gum and wood chemicals..... | 2.17 | 2.19 | 2.14 | 2.14 | 2.16 | 2.10 | 2.11 | 2.11 | 2.10 | 2.11 | 2.11 | 2.14 | 2.09 | 1.98 | 1.92 |
| Fertilizers..... | 2.00 | 2.01 | 1.95 | 1.90 | 1.84 | 1.84 | 1.89 | 1.91 | 1.93 | 1.89 | 1.90 | 1.93 | 1.90 | 1.80 | 1.75 |
| Vegetable and animal oils and fats..... | 2.16 | 2.18 | 2.14 | 2.11 | 2.06 | 2.04 | 2.03 | 2.03 | 1.96 | 1.95 | 1.96 | 1.99 | 1.99 | 1.92 | 1.86 |
| Miscellaneous chemicals..... | 2.44 | 2.44 | 2.43 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.39 | 2.37 | 2.37 | 2.35 | 2.25 | 2.17 |
| Products of petroleum and coal..... | 3.02 | 3.04 | 3.04 | 3.02 | 3.03 | 3.02 | 3.02 | 3.02 | 2.94 | 2.92 | 2.89 | 2.92 | 2.89 | 2.87 | 2.74 |
| Petroleum refining..... | 3.14 | 3.17 | 3.17 | 3.15 | 3.15 | 3.14 | 3.12 | 3.13 | 3.03 | 3.02 | 3.00 | 3.03 | 3.00 | 2.98 | 2.88 |
| Coke, other petroleum and coal products..... | 2.64 | 2.64 | 2.65 | 2.61 | 2.61 | 2.59 | 2.61 | 2.61 | 2.60 | 2.59 | 2.56 | 2.56 | 2.57 | 2.46 | 2.42 |
| Rubber products..... | 2.61 | 2.63 | 2.59 | 2.50 | 2.55 | 2.58 | 2.52 | 2.54 | 2.56 | 2.54 | 2.55 | 2.52 | 2.51 | 2.46 | 2.35 |
| Tires and inner tubes..... | 3.11 | 3.14 | 3.08 | 3.01 | 3.00 | 2.99 | 2.97 | 2.98 | 3.01 | 3.00 | 3.00 | 2.98 | 2.94 | 2.92 | 2.74 |
| Rubber footwear..... | 2.16 | 2.15 | 2.12 | 2.14 | 2.15 | 2.11 | 2.14 | 2.10 | 2.09 | 2.08 | 2.07 | 2.02 | 2.03 | 1.97 | 1.93 |
| Other rubber products..... | 2.36 | 2.35 | 2.35 | 2.34 | 2.32 | 2.30 | 2.30 | 2.31 | 2.31 | 2.31 | 2.32 | 2.32 | 2.29 | 2.23 | 2.12 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1960 | 1958 |
| | Average weekly earnings | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Nondurable goods—Continued</i> | | | | | | | | | | | | | | | |
| Leather and leather products..... | \$63.17 | \$64.13 | \$63.84 | \$61.82 | \$60.31 | \$61.79 | \$62.46 | \$62.91 | \$59.24 | \$60.42 | \$59.59 | \$59.24 | \$62.48 | \$60.70 | \$57.78 |
| Leather: tanned, curried, and finished..... | 86.58 | 86.15 | 86.80 | 85.32 | 85.75 | 83.64 | 81.96 | 82.60 | 82.39 | 84.07 | 84.74 | 84.10 | 84.56 | 80.94 | 78.39 |
| Industrial leather belting and packing..... | 85.68 | 81.74 | 88.40 | 82.14 | 80.36 | 80.52 | 81.99 | 82.81 | 79.76 | 81.58 | 80.87 | 78.74 | 78.74 | 79.56 | 76.02 |
| Boot and shoe cut stock and findings..... | 58.93 | 60.99 | 61.85 | 60.10 | 57.88 | 58.67 | 59.63 | 61.22 | 58.78 | 59.94 | 58.77 | 54.01 | 59.03 | 57.30 | 56.02 |
| Footwear (except rubber)..... | 60.47 | 62.21 | 61.24 | 59.33 | 57.21 | 59.50 | 60.26 | 61.02 | 56.76 | 56.64 | 55.39 | 55.65 | 60.26 | 58.34 | 54.87 |
| Luggage..... | 70.62 | 67.68 | 70.67 | 68.17 | 67.30 | 67.08 | 64.44 | 63.54 | 57.63 | 65.62 | 65.32 | 68.46 | 65.18 | 63.45 | 63.45 |
| Handbags and small leather goods..... | 60.42 | 60.20 | 57.24 | 56.41 | 56.63 | 60.22 | 59.75 | 58.97 | 52.08 | 60.92 | 62.17 | 58.19 | 58.45 | 56.45 | 55.54 |
| Gloves and miscellaneous leather goods..... | 53.44 | 53.51 | 54.54 | 54.10 | 54.39 | 54.02 | 54.24 | 52.77 | 54.09 | 55.13 | 54.67 | 53.22 | 54.52 | 61.89 | 50.40 |
| Transportation and public utilities: | | | | | | | | | | | | | | | |
| Transportation: | | | | | | | | | | | | | | | |
| Interstate railroads: | | | | | | | | | | | | | | | |
| Class I railroads ¹ | 111.64 | 111.64 | 114.38 | 113.95 | 108.27 | 111.41 | 115.02 | 108.92 | 111.04 | 106.02 | 108.39 | 107.18 | 110.33 | 106.43 | 101.50 |
| Local railways and buslines..... | 102.00 | 102.24 | 103.97 | 102.53 | 101.15 | 101.10 | 101.63 | 100.20 | 102.62 | 99.72 | 98.53 | 99.96 | 100.22 | 94.59 | 90.52 |
| Communication: | | | | | | | | | | | | | | | |
| Telephone..... | 93.38 | 93.46 | 92.12 | 91.03 | 90.17 | 90.02 | 90.71 | 90.48 | 91.64 | 92.92 | 92.00 | 95.47 | 89.27 | 85.46 | 78.73 |
| Telegraph..... | 104.58 | 104.90 | 105.33 | 106.00 | 102.51 | 103.17 | 102.01 | 103.00 | 100.77 | 100.98 | 103.70 | 100.14 | 103.09 | 95.99 | 90.06 |
| Other public utilities: | | | | | | | | | | | | | | | |
| Gas and electric utilities..... | 114.24 | 114.52 | 113.02 | 112.46 | 112.46 | 112.33 | 113.29 | 112.88 | 114.40 | 113.30 | 112.89 | 115.87 | 110.16 | 105.78 | 100.37 |
| Electric light and power utilities..... | 114.93 | 115.21 | 113.70 | 112.61 | 112.61 | 112.74 | 112.33 | 112.61 | 113.57 | 113.03 | 111.66 | 116.89 | 110.97 | 106.34 | 101.43 |
| Gas utilities..... | 105.44 | 106.25 | 104.78 | 104.26 | 104.92 | 104.49 | 105.82 | 105.15 | 107.23 | 108.63 | 106.97 | 104.04 | 102.21 | 99.39 | 94.53 |
| Electric light and gas utilities combined..... | 121.66 | 120.42 | 119.72 | 118.84 | 118.44 | 118.32 | 120.60 | 119.48 | 121.47 | 120.47 | 120.64 | 123.06 | 118.87 | 110.56 | 103.63 |
| Average weekly hours | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Nondurable goods—Continued</i> | | | | | | | | | | | | | | | |
| Leather and leather products..... | 37.6 | 38.4 | 38.0 | 36.8 | 35.9 | 37.0 | 37.4 | 37.9 | 35.9 | 36.4 | 35.9 | 36.9 | 38.1 | 37.7 | 36.8 |
| Leather: tanned, curried, and finished..... | 39.9 | 39.7 | 40.0 | 39.5 | 39.7 | 38.9 | 38.3 | 38.6 | 38.5 | 39.1 | 39.6 | 39.3 | 39.7 | 39.1 | 39.0 |
| Industrial leather belting and packing..... | 40.8 | 39.3 | 41.5 | 39.3 | 39.2 | 38.9 | 39.8 | 40.2 | 39.1 | 39.6 | 39.3 | 38.6 | 38.6 | 40.8 | 39.7 |
| Boot and shoe cut stock and findings..... | 37.3 | 38.6 | 38.9 | 37.8 | 36.4 | 36.9 | 37.5 | 38.5 | 37.2 | 37.7 | 35.3 | 34.4 | 37.6 | 37.7 | 37.1 |
| Footwear (except rubber)..... | 37.1 | 38.4 | 37.8 | 36.4 | 35.1 | 36.5 | 37.2 | 37.9 | 35.7 | 35.4 | 34.6 | 35.0 | 37.9 | 37.4 | 36.1 |
| Luggage..... | 39.9 | 38.4 | 39.7 | 38.3 | 37.6 | 37.9 | 36.2 | 35.9 | 34.1 | 38.6 | 35.2 | 39.8 | 38.8 | 38.8 | 38.0 |
| Handbags and small leather goods..... | 38.0 | 38.1 | 36.0 | 35.7 | 36.3 | 38.6 | 38.3 | 37.8 | 33.6 | 38.8 | 39.6 | 37.3 | 38.2 | 38.4 | 38.8 |
| Gloves and miscellaneous leather goods..... | 36.6 | 36.4 | 37.1 | 36.8 | 37.0 | 37.0 | 36.9 | 36.9 | 37.3 | 37.8 | 37.7 | 36.7 | 37.6 | 36.8 | 36.0 |
| Transportation and public utilities: | | | | | | | | | | | | | | | |
| Transportation: | | | | | | | | | | | | | | | |
| Interstate railroads: | | | | | | | | | | | | | | | |
| Class I railroads ¹ | 41.5 | 41.5 | 43.0 | 43.0 | 40.4 | 42.2 | 42.6 | 41.1 | 41.9 | 40.6 | 40.9 | 40.6 | 42.6 | 41.9 | 41.0 |
| Local railways and buslines..... | 42.5 | 42.6 | 43.5 | 42.9 | 42.5 | 42.3 | 42.7 | 42.1 | 43.3 | 42.8 | 42.6 | 42.9 | 43.2 | 42.8 | 42.7 |
| Communication: | | | | | | | | | | | | | | | |
| Telephone..... | 39.4 | 39.6 | 39.2 | 38.9 | 38.7 | 38.8 | 39.1 | 39.0 | 39.5 | 40.4 | 40.0 | 40.8 | 39.5 | 39.2 | 38.4 |
| Telegraph..... | 42.0 | 42.8 | 42.3 | 42.4 | 41.5 | 41.6 | 41.3 | 41.7 | 41.3 | 41.9 | 42.5 | 43.6 | 42.6 | 42.1 | 41.5 |
| Other public utilities: | | | | | | | | | | | | | | | |
| Gas and electric utilities..... | 40.8 | 40.9 | 40.8 | 40.6 | 40.6 | 40.7 | 40.9 | 40.9 | 41.3 | 41.2 | 41.2 | 41.8 | 40.8 | 41.0 | 40.8 |
| Electric light and power utilities..... | 40.9 | 41.0 | 40.9 | 40.8 | 40.8 | 40.7 | 40.7 | 40.8 | 41.0 | 41.1 | 40.9 | 42.2 | 41.1 | 40.9 | 40.9 |
| Gas utilities..... | 40.4 | 40.4 | 40.3 | 40.1 | 40.2 | 40.5 | 40.7 | 40.6 | 41.4 | 41.1 | 41.3 | 40.8 | 40.4 | 40.9 | 40.7 |
| Electric light and gas utilities combined..... | 41.1 | 41.1 | 41.0 | 40.7 | 40.7 | 40.8 | 41.3 | 41.2 | 41.6 | 41.4 | 41.6 | 42.0 | 40.8 | 41.1 | 40.8 |
| Average hourly earnings | | | | | | | | | | | | | | | |
| Manufacturing—Continued | | | | | | | | | | | | | | | |
| <i>Nondurable goods—Continued</i> | | | | | | | | | | | | | | | |
| Leather and leather products..... | \$1.68 | \$1.67 | \$1.68 | \$1.68 | \$1.68 | \$1.67 | \$1.67 | \$1.66 | \$1.65 | \$1.66 | \$1.66 | \$1.65 | \$1.64 | \$1.61 | \$1.57 |
| Leather: tanned, curried, and finished..... | 2.17 | 2.17 | 2.17 | 2.16 | 2.16 | 2.15 | 2.14 | 2.14 | 2.14 | 2.15 | 2.14 | 2.14 | 2.13 | 2.07 | 2.01 |
| Industrial leather belting and packing..... | 2.10 | 2.08 | 2.13 | 2.06 | 2.05 | 2.07 | 2.06 | 2.06 | 2.04 | 2.06 | 2.05 | 2.04 | 2.04 | 1.95 | 1.93 |
| Boot and shoe cut stock and findings..... | 1.58 | 1.58 | 1.59 | 1.59 | 1.59 | 1.59 | 1.59 | 1.59 | 1.58 | 1.59 | 1.58 | 1.57 | 1.57 | 1.52 | 1.51 |
| Footwear (except rubber)..... | 1.63 | 1.62 | 1.62 | 1.63 | 1.63 | 1.63 | 1.62 | 1.61 | 1.59 | 1.60 | 1.60 | 1.59 | 1.59 | 1.56 | 1.53 |
| Luggage..... | 1.77 | 1.76 | 1.78 | 1.78 | 1.79 | 1.77 | 1.78 | 1.77 | 1.69 | 1.70 | 1.71 | 1.72 | 1.68 | 1.65 | 1.67 |
| Handbags and small leather goods..... | 1.59 | 1.58 | 1.59 | 1.58 | 1.58 | 1.56 | 1.56 | 1.56 | 1.55 | 1.57 | 1.57 | 1.56 | 1.53 | 1.47 | 1.44 |
| Gloves and miscellaneous leather goods..... | 1.46 | 1.47 | 1.47 | 1.47 | 1.47 | 1.46 | 1.47 | 1.43 | 1.45 | 1.47 | 1.45 | 1.45 | 1.45 | 1.41 | 1.40 |
| Transportation and public utilities: | | | | | | | | | | | | | | | |
| Transportation: | | | | | | | | | | | | | | | |
| Interstate railroads: | | | | | | | | | | | | | | | |
| Class I railroads ¹ | 2.69 | 2.69 | 2.66 | 2.65 | 2.68 | 2.64 | 2.70 | 2.65 | 2.65 | 2.64 | 2.65 | 2.64 | 2.60 | 2.54 | 2.44 |
| Local railways and buslines..... | 2.40 | 2.40 | 2.39 | 2.39 | 2.38 | 2.39 | 2.38 | 2.38 | 2.37 | 2.33 | 2.32 | 2.33 | 2.32 | 2.21 | 2.12 |
| Communication: | | | | | | | | | | | | | | | |
| Telephone..... | 2.37 | 2.36 | 2.35 | 2.34 | 2.33 | 2.32 | 2.32 | 2.32 | 2.32 | 2.30 | 2.30 | 2.34 | 2.26 | 2.18 | 2.08 |
| Telegraph..... | 2.49 | 2.48 | 2.49 | 2.50 | 2.47 | 2.48 | 2.47 | 2.44 | 2.41 | 2.44 | 2.44 | 2.44 | 2.42 | 2.28 | 2.17 |
| Other public utilities: | | | | | | | | | | | | | | | |
| Gas and electric utilities..... | 2.80 | 2.80 | 2.77 | 2.77 | 2.77 | 2.76 | 2.77 | 2.76 | 2.77 | 2.75 | 2.74 | 2.78 | 2.70 | 2.58 | 2.46 |
| Electric light and power utilities..... | 2.81 | 2.81 | 2.78 | 2.76 | 2.76 | 2.76 | 2.76 | 2.76 | 2.77 | 2.75 | 2.73 | 2.77 | 2.70 | 2.60 | 2.48 |
| Gas utilities..... | 2.61 | 2.63 | 2.60 | 2.60 | 2.61 | 2.58 | 2.60 | 2.59 | 2.59 | 2.57 | 2.59 | 2.55 | 2.53 | 2.43 | 2.33 |
| Electric light and gas utilities combined..... | 2.96 | 2.93 | 2.92 | 2.92 | 2.91 | 2.90 | 2.92 | 2.90 | 2.92 | 2.91 | 2.90 | 2.93 | 2.84 | 2.69 | 2.54 |

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

| Industry | 1961 | | | | | | | | | | 1960 | | | | | Annual average | |
|---|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Aug. ¹ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | | |
| Average weekly earnings | | | | | | | | | | | | | | | | | |
| Wholesale and retail trade: | \$96.15 | \$96.80 | \$96.32 | \$95.04 | \$94.64 | \$94.00 | \$93.37 | \$94.07 | \$93.20 | \$93.67 | \$93.90 | \$94.13 | \$93.56 | \$90.27 | \$87.02 | | |
| Wholesale trade..... | 71.25 | 71.82 | 70.69 | 69.56 | 60.01 | 68.44 | 60.00 | 60.00 | 67.11 | 68.25 | 68.44 | 68.43 | 69.32 | 67.06 | 64.77 | | |
| Retail trade (except eating and drinking places)..... | 51.06 | 52.40 | 51.11 | 50.32 | 49.69 | 49.49 | 49.35 | 49.69 | 49.56 | 48.53 | 48.87 | 49.30 | 50.26 | 48.37 | 46.85 | | |
| General merchandise stores..... | 57.07 | 58.46 | 57.60 | 56.93 | 55.88 | 55.06 | 54.74 | 55.09 | 56.00 | 53.90 | 54.90 | 55.71 | 56.22 | 54.36 | 52.60 | | |
| Department stores and general mail-order houses..... | 75.66 | 76.08 | 74.61 | 73.36 | 72.59 | 72.10 | 72.31 | 71.25 | 73.69 | 72.01 | 72.27 | 72.76 | 69.80 | 67.52 | | | |
| Food and liquor stores..... | 91.54 | 93.07 | 93.05 | 91.75 | 90.43 | 89.76 | 87.40 | 88.71 | 88.48 | 86.79 | 89.69 | 88.24 | 89.96 | 88.24 | 83.22 | | |
| Automotive and accessories dealers..... | 55.14 | 55.17 | 54.86 | 53.72 | 52.91 | 52.39 | 53.85 | 53.74 | 53.28 | 52.51 | 52.82 | 52.48 | 52.05 | 51.90 | 50.81 | | |
| Apparel and accessories stores..... | 80.56 | 79.37 | 80.15 | 77.90 | 77.93 | 76.70 | 76.14 | 76.95 | 79.30 | 77.74 | 77.14 | 77.30 | 77.49 | 75.76 | 72.81 | | |
| Other retail trade: | 85.00 | 84.60 | 84.18 | 83.78 | 81.93 | 81.12 | 80.73 | 81.34 | 80.12 | 81.93 | 83.56 | 82.94 | 83.60 | 79.95 | 77.04 | | |
| Furniture and appliance stores..... | 71.50 | 72.17 | 71.59 | 71.60 | 71.90 | 71.80 | 71.42 | 71.81 | 70.69 | 70.31 | 70.69 | 69.75 | 69.75 | 68.07 | 66.57 | | |
| Lumber and hardware supply stores..... | 120.23 | 124.30 | 141.69 | 150.44 | 150.82 | 139.94 | 128.32 | 117.40 | 115.76 | 105.81 | 112.25 | 113.61 | 113.14 | 119.24 | 106.88 | | |
| Finance, insurance, and real estate: | 90.42 | 90.10 | 89.84 | 89.88 | 89.54 | 89.44 | 89.22 | 89.44 | 88.75 | 88.50 | 88.40 | 87.92 | 88.34 | 85.70 | 82.97 | | |
| Banks and trust companies..... | 50.90 | 50.13 | 50.80 | 50.27 | 49.23 | 49.60 | 49.10 | 48.83 | 49.63 | 49.23 | 49.48 | 48.83 | 49.04 | 47.44 | 45.20 | | |
| Security dealers and exchanges..... | 49.13 | 49.50 | 50.40 | 49.88 | 48.48 | 48.36 | 47.72 | 47.85 | 47.48 | 48.22 | 48.53 | 48.46 | 48.07 | 46.45 | 44.30 | | |
| Insurance carriers..... | 54.05 | 55.48 | 58.02 | 57.49 | 54.24 | 54.67 | 53.53 | 54.53 | 52.82 | 54.67 | 56.20 | 54.67 | 53.02 | 53.29 | 50.83 | | |
| Service and miscellaneous: | 119.74 | 123.59 | 122.59 | 117.99 | 117.16 | 121.31 | 121.80 | 117.66 | 121.25 | 122.48 | 116.15 | 116.45 | 118.61 | 108.36 | 98.65 | | |
| Hotels and lodging places: | | | | | | | | | | | | | | | | | |
| Hotels, year-round..... | | | | | | | | | | | | | | | | | |
| Personal services: | | | | | | | | | | | | | | | | | |
| Laundries..... | | | | | | | | | | | | | | | | | |
| Cleaning and dyeing plants..... | | | | | | | | | | | | | | | | | |
| Motion pictures: | | | | | | | | | | | | | | | | | |
| Motion-picture production and distribution..... | | | | | | | | | | | | | | | | | |
| Average weekly hours | | | | | | | | | | | | | | | | | |
| Wholesale and retail trade: | 40.4 | 40.5 | 40.3 | 40.1 | 40.1 | 40.0 | 39.9 | 40.2 | 40.0 | 40.2 | 40.3 | 40.4 | 40.5 | 40.3 | 40.1 | | |
| Wholesale trade..... | 38.1 | 38.2 | 37.8 | 37.4 | 37.3 | 37.4 | 37.5 | 37.5 | 37.7 | 37.5 | 37.4 | 37.6 | 38.3 | 38.1 | 38.1 | | |
| Retail trade (except eating and drinking places)..... | 34.5 | 34.7 | 34.3 | 34.0 | 33.8 | 33.9 | 33.8 | 33.8 | 33.4 | 33.7 | 33.7 | 34.0 | 34.9 | 34.8 | 34.7 | | |
| General merchandise stores..... | 34.8 | 34.8 | 34.7 | 34.5 | 34.1 | 34.2 | 34.0 | 33.9 | 33.9 | 33.9 | 34.1 | 34.6 | 35.2 | 35.3 | 35.3 | | |
| Department stores and general mail-order houses..... | 36.2 | 36.4 | 35.7 | 35.1 | 34.9 | 35.0 | 35.1 | 35.1 | 35.6 | 35.8 | 35.6 | 36.2 | 36.4 | 36.4 | 36.3 | | |
| Food and liquor stores..... | 43.8 | 43.9 | 44.1 | 43.9 | 43.9 | 44.0 | 43.7 | 43.7 | 43.8 | 43.8 | 43.7 | 43.9 | 44.1 | 43.9 | 43.8 | | |
| Automotive and accessories dealers..... | 34.9 | 34.7 | 34.5 | 34.0 | 33.7 | 33.8 | 34.3 | 33.8 | 34.6 | 34.1 | 34.3 | 34.3 | 35.1 | 34.6 | 34.8 | | |
| Apparel and accessories stores..... | 41.1 | 40.7 | 41.1 | 41.0 | 40.8 | 40.8 | 40.5 | 41.3 | 40.7 | 40.6 | 40.9 | 41.0 | 41.4 | 41.8 | | | |
| Other retail trade: | 42.5 | 42.3 | 42.3 | 42.1 | 41.8 | 41.6 | 41.4 | 41.5 | 41.8 | 41.8 | 42.2 | 42.1 | 42.7 | 42.3 | 42.1 | | |
| Furniture and appliance stores..... | 37.2 | 37.2 | 36.9 | 37.1 | 37.3 | 37.2 | 37.2 | 37.4 | 37.4 | 37.3 | 37.4 | 37.1 | 37.3 | 37.4 | 37.4 | | |
| Lumber and hardware supply stores..... | | | | | | | | | | | | | | | | | |
| Finance, insurance, and real estate: | | | | | | | | | | | | | | | | | |
| Banks and trust companies..... | | | | | | | | | | | | | | | | | |
| Security dealers and exchanges..... | | | | | | | | | | | | | | | | | |
| Insurance carriers..... | | | | | | | | | | | | | | | | | |
| Service and miscellaneous: | | | | | | | | | | | | | | | | | |
| Hotels and lodging places: | | | | | | | | | | | | | | | | | |
| Hotels, year-round..... | | | | | | | | | | | | | | | | | |
| Personal services: | | | | | | | | | | | | | | | | | |
| Laundries..... | | | | | | | | | | | | | | | | | |
| Cleaning and dyeing plants..... | | | | | | | | | | | | | | | | | |
| Motion pictures: | | | | | | | | | | | | | | | | | |
| Motion-picture production and distribution..... | | | | | | | | | | | | | | | | | |
| Average hourly earnings | | | | | | | | | | | | | | | | | |
| Wholesale and retail trade: | \$2.38 | \$2.39 | \$2.39 | \$2.37 | \$2.36 | \$2.35 | \$2.34 | \$2.34 | \$2.33 | \$2.33 | \$2.33 | \$2.33 | \$2.31 | \$2.24 | \$2.17 | | |
| Wholesale trade..... | 1.87 | 1.88 | 1.87 | 1.85 | 1.85 | 1.83 | 1.84 | 1.84 | 1.78 | 1.82 | 1.83 | 1.82 | 1.81 | 1.76 | 1.70 | | |
| Retail trade (except eating and drinking places)..... | 1.48 | 1.51 | 1.47 | 1.48 | 1.47 | 1.46 | 1.46 | 1.47 | 1.40 | 1.44 | 1.45 | 1.45 | 1.44 | 1.39 | 1.35 | | |
| General merchandise stores..... | 1.64 | 1.68 | 1.66 | 1.65 | 1.63 | 1.61 | 1.61 | 1.63 | 1.59 | 1.61 | 1.61 | 1.61 | 1.60 | 1.54 | 1.49 | | |
| Department stores and general mail-order houses..... | 2.09 | 2.09 | 2.09 | 2.09 | 2.08 | 2.06 | 2.06 | 2.06 | 2.03 | 2.07 | 2.04 | 2.03 | 2.01 | 1.92 | 1.85 | | |
| Food and liquor stores..... | 2.09 | 2.12 | 2.11 | 2.09 | 2.06 | 2.04 | 2.00 | 2.03 | 2.02 | 2.05 | 2.05 | 2.01 | 2.01 | 2.01 | 1.90 | | |
| Automotive and accessories dealers..... | 1.68 | 1.59 | 1.59 | 1.58 | 1.57 | 1.55 | 1.57 | 1.59 | 1.54 | 1.54 | 1.54 | 1.53 | 1.50 | 1.50 | 1.46 | | |
| Apparel and accessories stores..... | 1.96 | 1.95 | 1.95 | 1.90 | 1.91 | 1.88 | 1.88 | 1.90 | 1.92 | 1.91 | 1.90 | 1.89 | 1.89 | 1.83 | 1.73 | | |
| Other retail trade: | 2.00 | 2.00 | 1.99 | 1.99 | 1.96 | 1.95 | 1.95 | 1.96 | 1.94 | 1.96 | 1.98 | 1.97 | 1.96 | 1.89 | 1.83 | | |
| Furniture and appliance stores..... | 1.93 | 1.94 | 1.94 | 1.93 | 1.93 | 1.93 | 1.93 | 1.92 | 1.89 | 1.89 | 1.89 | 1.88 | 1.87 | 1.82 | 1.78 | | |
| Lumber and hardware supply stores..... | | | | | | | | | | | | | | | | | |
| Finance, insurance, and real estate: | | | | | | | | | | | | | | | | | |
| Banks and trust companies..... | | | | | | | | | | | | | | | | | |
| Security dealers and exchanges..... | | | | | | | | | | | | | | | | | |
| Insurance carriers..... | | | | | | | | | | | | | | | | | |
| Service and miscellaneous: | | | | | | | | | | | | | | | | | |
| Hotels and lodging places: | | | | | | | | | | | | | | | | | |
| Hotels, year-round..... | | | | | | | | | | | | | | | | | |
| Personal services: | | | | | | | | | | | | | | | | | |
| Laundries..... | | | | | | | | | | | | | | | | | |
| Cleaning and dyeing plants..... | | | | | | | | | | | | | | | | | |
| Motion pictures: | | | | | | | | | | | | | | | | | |
| Motion-picture production and distribution..... | | | | | | | | | | | | | | | | | |

¹ For comparability of data with those published in issues prior to August 1958 and coverage of these series, see footnote 1, table A-2.

In addition, hours and earnings data for anthracite mining have been revised from January 1953 and are not comparable with those published in issues prior to August 1958.

For mining, manufacturing, laundries, and cleaning and dyeing plants, data refer to production and related workers; for contract construction, to construction workers; and for the remaining industries, unless otherwise noted, to nonsupervisory workers and working supervisors.

² Preliminary.

³ Figures for Class I railroads (excluding switching and terminal companies) are based upon monthly data summarized in the M-300 report by the Interstate Commerce Commission and relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICO Group I).

⁴ Data relate to domestic nonsupervisory employees except messengers.

⁵ Average weekly earnings have been revised beginning with January 1958 and are not strictly comparable with data for earlier years. Average weekly hours and average hourly earnings are new series, available from January 1958.

⁶ Money payments only; additional value of board, room, uniforms, and tips not included.

Sources: U.S. Department of Labor, Bureau of Labor Statistics for all series except that for Class I railroads. (See footnote 3.)

TABLE C-2. Average overtime hours and average hourly earnings excluding overtime of production workers in manufacturing, by major industry group¹

| Major industry group | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|---|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | Aug. ² | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 |
| Average overtime hours ³ | | | | | | | | | | | | | | | |
| Manufacturing..... | 2.6 | 2.4 | 2.4 | 2.1 | 2.0 | 1.9 | 1.9 | 1.9 | 2.0 | 2.2 | 2.5 | 2.5 | 2.4 | 2.7 | 2.0 |
| Durable goods..... | 2.4 | 2.3 | 2.3 | 2.0 | 1.9 | 1.7 | 1.7 | 1.7 | 1.9 | 2.0 | 2.4 | 2.5 | 2.3 | 2.7 | 1.9 |
| Ordnance and accessories..... | 1.9 | 1.7 | 1.7 | 1.8 | 1.7 | 2.0 | 1.8 | 1.6 | 1.9 | 2.0 | 2.1 | 2.2 | 2.1 | 2.1 | 2.0 |
| Lumber and wood products..... | 3.4 | 3.1 | 3.2 | 2.9 | 2.8 | 2.3 | 2.2 | 2.2 | 2.3 | 2.5 | 3.1 | 3.1 | 3.2 | 3.4 | 2.9 |
| Furniture and fixtures..... | 2.9 | 2.2 | 2.2 | 1.7 | 1.8 | 1.7 | 1.5 | 1.5 | 2.3 | 2.3 | 2.7 | 2.8 | 2.8 | 2.9 | 2.1 |
| Stone, clay, and glass products..... | 3.3 | 3.3 | 3.3 | 3.0 | 2.7 | 2.5 | 2.4 | 2.3 | 2.5 | 3.0 | 3.1 | 3.1 | 3.2 | 3.4 | 2.8 |
| Primary metal industries..... | 2.0 | 2.0 | 2.0 | 1.5 | 1.4 | 1.2 | 1.2 | 1.4 | 1.3 | 1.2 | 1.3 | 1.6 | 1.4 | 2.6 | 1.8 |
| Fabricated metal products..... | 2.7 | 2.6 | 2.4 | 2.2 | 2.0 | 1.8 | 1.7 | 1.7 | 1.8 | 2.0 | 2.6 | 2.9 | 2.8 | 2.9 | 2.1 |
| Machinery (except electrical)..... | 2.2 | 2.2 | 2.3 | 2.1 | 2.0 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 2.1 | 2.3 | 2.3 | 2.7 | 1.7 |
| Electrical machinery..... | 1.9 | 1.7 | 1.9 | 1.5 | 1.5 | 1.4 | 1.5 | 1.6 | 1.9 | 1.7 | 2.1 | 2.1 | 1.9 | 2.2 | 1.5 |
| Transportation equipment..... | 2.3 | 2.1 | 1.9 | 1.9 | 1.8 | 1.5 | 1.6 | 1.5 | 2.1 | 2.4 | 3.1 | 2.9 | 2.3 | 2.5 | 1.9 |
| Instruments and related products..... | 2.2 | 2.1 | 1.9 | 1.9 | 1.8 | 1.7 | 1.7 | 1.8 | 1.9 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 1.5 |
| Miscellaneous manufacturing..... | 2.6 | 2.2 | 2.2 | 2.2 | 2.0 | 1.9 | 2.0 | 2.0 | 2.2 | 2.4 | 2.7 | 2.5 | 2.3 | 2.6 | 2.1 |
| Nondurable goods..... | 2.7 | 2.6 | 2.5 | 2.3 | 2.2 | 2.1 | 2.1 | 2.0 | 2.2 | 2.3 | 2.5 | 2.6 | 2.5 | 2.7 | 2.2 |
| Food and kindred products..... | 3.6 | 3.6 | 3.5 | 3.1 | 2.8 | 2.8 | 2.8 | 3.0 | 3.1 | 3.2 | 3.4 | 3.7 | 3.3 | 3.3 | 3.0 |
| Tobacco manufactures..... | 1.3 | 1.1 | 1.3 | 1.1 | 1.0 | .6 | .6 | .7 | 1.2 | 1.2 | 1.4 | 1.4 | .9 | 1.2 | 1.3 |
| Textile-mill products..... | 3.0 | 2.6 | 2.8 | 2.5 | 2.3 | 2.1 | 2.0 | 1.9 | 2.1 | 2.2 | 2.3 | 2.2 | 2.6 | 3.1 | 2.1 |
| Apparel and other finished textile products..... | 1.5 | 1.2 | 1.1 | 1.0 | 1.1 | 1.2 | 1.1 | .9 | .9 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.1 |
| Paper and allied products..... | 4.7 | 4.7 | 4.4 | 3.9 | 3.1 | 3.7 | 3.7 | 3.6 | 3.6 | 3.8 | 4.1 | 4.4 | 4.3 | 4.6 | 3.9 |
| Printing and publishing..... | 2.7 | 2.6 | 2.5 | 2.5 | 2.5 | 2.6 | 2.4 | 2.5 | 2.9 | 3.1 | 3.3 | 3.4 | 3.1 | 3.0 | 2.8 |
| Chemicals and allied products..... | 2.5 | 2.5 | 2.5 | 2.3 | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 | 2.1 | 2.4 | 2.4 | 2.3 | 2.5 | 2.0 |
| Products of petroleum and coal..... | 1.6 | 2.2 | 2.4 | 1.8 | 1.6 | 1.3 | 1.2 | 1.8 | 1.5 | 1.8 | 1.7 | 2.2 | 1.8 | 1.8 | 1.5 |
| Rubber products..... | 2.8 | 2.6 | 2.3 | 2.2 | 1.9 | 1.4 | 1.6 | 1.5 | 1.6 | 1.8 | 2.3 | 2.3 | 2.3 | 3.7 | 2.3 |
| Leather and leather products..... | 1.4 | 1.4 | 1.4 | 1.1 | 1.1 | 1.3 | 1.4 | 1.5 | 1.2 | 1.2 | 1.3 | 1.2 | 1.6 | 1.4 | 1.1 |
| Average hourly earnings excluding overtime ⁴ | | | | | | | | | | | | | | | |
| Manufacturing..... | \$2.26 | \$2.28 | \$2.28 | \$2.28 | \$2.28 | \$2.27 | \$2.26 | \$2.27 | \$2.26 | \$2.24 | \$2.23 | \$2.23 | \$2.21 | \$2.15 | \$2.08 |
| Durable goods..... | 2.43 | 2.44 | 2.44 | 2.44 | 2.43 | 2.42 | 2.42 | 2.42 | 2.42 | 2.42 | 2.39 | 2.39 | 2.37 | 2.30 | 2.23 |
| Ordnance and accessories..... | 2.69 | 2.69 | 2.66 | 2.66 | 2.64 | 2.64 | 2.63 | 2.64 | 2.63 | 2.62 | 2.61 | 2.60 | 2.57 | 2.49 | 2.42 |
| Lumber and wood products..... | 2.00 | 2.02 | 2.01 | 2.01 | 1.99 | 1.94 | 1.92 | 1.94 | 1.95 | 1.95 | 1.95 | 2.03 | 1.99 | 1.89 | 1.82 |
| Furniture and fixtures..... | 1.82 | 1.83 | 1.83 | 1.83 | 1.83 | 1.83 | 1.83 | 1.82 | 1.82 | 1.81 | 1.81 | 1.81 | 1.80 | 1.76 | 1.73 |
| Stone, clay, and glass products..... | 2.26 | 2.26 | 2.25 | 2.25 | 2.24 | 2.24 | 2.23 | 2.24 | 2.24 | 2.23 | 2.22 | 2.21 | 2.20 | 2.13 | 2.04 |
| Primary metal industries..... | 2.86 | 2.86 | 2.85 | 2.85 | 2.84 | 2.81 | 2.80 | 2.81 | 2.79 | 2.75 | 2.75 | 2.75 | 2.75 | 2.70 | 2.61 |
| Fabricated metal products..... | 2.43 | 2.43 | 2.43 | 2.44 | 2.43 | 2.42 | 2.42 | 2.41 | 2.41 | 2.40 | 2.39 | 2.39 | 2.37 | 2.29 | 2.21 |
| Machinery (except electrical)..... | 2.56 | 2.57 | 2.57 | 2.57 | 2.56 | 2.56 | 2.56 | 2.55 | 2.54 | 2.52 | 2.51 | 2.50 | 2.49 | 2.42 | 2.33 |
| Electrical machinery..... | 2.31 | 2.33 | 2.32 | 2.32 | 2.31 | 2.31 | 2.30 | 2.31 | 2.31 | 2.28 | 2.25 | 2.26 | 2.25 | 2.16 | 2.11 |
| Transportation equipment..... | 2.75 | 2.75 | 2.74 | 2.74 | 2.73 | 2.72 | 2.73 | 2.73 | 2.73 | 2.71 | 2.71 | 2.71 | 2.68 | 2.58 | 2.47 |
| Instruments and related products..... | 2.36 | 2.36 | 2.37 | 2.36 | 2.37 | 2.37 | 2.36 | 2.36 | 2.35 | 2.33 | 2.31 | 2.30 | 2.31 | 2.22 | 2.15 |
| Miscellaneous manufacturing..... | 1.92 | 1.93 | 1.94 | 1.94 | 1.95 | 1.95 | 1.95 | 1.95 | 1.93 | 1.90 | 1.89 | 1.89 | 1.88 | 1.84 | 1.80 |
| Nondurable goods..... | 2.06 | 2.08 | 2.07 | 2.07 | 2.07 | 2.06 | 2.06 | 2.07 | 2.06 | 2.04 | 2.03 | 2.02 | 2.01 | 1.94 | 1.89 |
| Food and kindred products..... | 2.11 | 2.15 | 2.16 | 2.18 | 2.18 | 2.18 | 2.18 | 2.17 | 2.14 | 2.12 | 2.09 | 2.05 | 2.07 | 2.02 | 1.94 |
| Tobacco manufactures..... | 1.73 | 1.85 | 1.87 | 1.86 | 1.86 | 1.80 | 1.77 | 1.75 | 1.75 | 1.71 | 1.68 | 1.56 | 1.69 | 1.64 | 1.57 |
| Textile-mill products..... | 1.58 | 1.58 | 1.59 | 1.59 | 1.59 | 1.59 | 1.58 | 1.58 | 1.58 | 1.58 | 1.58 | 1.57 | 1.57 | 1.52 | 1.47 |
| Apparel and other finished textile products..... | 1.58 | 1.57 | 1.55 | 1.56 | 1.56 | 1.57 | 1.57 | 1.57 | 1.54 | 1.56 | 1.56 | 1.55 | 1.54 | 1.49 | 1.40 |
| Paper and allied products..... | 2.25 | 2.25 | 2.24 | 2.24 | 2.23 | 2.23 | 2.22 | 2.22 | 2.22 | 2.20 | 2.20 | 2.19 | 2.19 | 2.09 | 2.02 |
| Printing and publishing..... | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) |
| Chemicals and allied products..... | 2.54 | 2.55 | 2.53 | 2.50 | 2.48 | 2.48 | 2.49 | 2.49 | 2.49 | 2.46 | 2.47 | 2.47 | 2.47 | 2.34 | 2.26 |
| Products of petroleum and coal..... | 2.96 | 2.96 | 2.96 | 2.96 | 2.97 | 2.97 | 2.97 | 2.96 | 2.98 | 2.96 | 2.94 | 2.95 | 2.93 | 2.81 | 2.69 |
| Rubber products..... | 2.52 | 2.55 | 2.52 | 2.49 | 2.49 | 2.49 | 2.47 | 2.50 | 2.50 | 2.49 | 2.47 | 2.45 | 2.44 | 2.26 | 2.28 |
| Leather and leather products..... | 1.65 | 1.64 | 1.64 | 1.66 | 1.66 | 1.64 | 1.63 | 1.63 | 1.62 | 1.63 | 1.63 | 1.62 | 1.61 | 1.58 | 1.55 |

¹ For comparability of data with those published in issues prior to August 1958, see footnote 1, table A-2.

² Preliminary.

³ Covers premium overtime hours of production and related workers during the pay period ending nearest the 15th of the month. Overtime hours are those for which premiums were paid because the hours were in excess of the number of hours of either the straight-time workday or workweek. Weekend and holiday hours are included only if premium wage rates were paid. Hours

for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded. These data are not available prior to 1955.

⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

⁵ Not available as average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable-goods total has little effect.

TABLE C-3. Indexes of aggregate weekly man-hours and payrolls in industrial and construction activities¹

[1947-49=100]

| Activity | 1961 | | | | | | | | 1960 | | | | | Annual average | |
|--|--------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|
| | Sept. ³ | Aug. ³ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1959 | 1958 |
| Man-hours | | | | | | | | | | | | | | | |
| Total..... | 100.6 | 101.5 | 98.9 | 99.3 | 95.0 | 91.8 | 89.9 | 88.7 | 90.1 | 91.5 | 96.8 | 101.0 | 102.1 | 100.7 | 94.3 |
| Mining..... | 61.3 | 61.4 | 62.4 | 62.2 | 59.7 | 57.8 | 56.4 | 57.5 | 59.2 | 59.5 | 60.0 | 62.6 | 62.9 | 65.4 | 67.9 |
| Contract construction..... | 139.7 | 146.6 | 140.6 | 137.4 | 122.3 | 111.0 | 101.0 | 95.0 | 101.7 | 103.5 | 121.6 | 138.3 | 139.3 | 123.4 | 118.2 |
| Manufacturing..... | 97.6 | 97.7 | 95.4 | 96.3 | 93.5 | 91.3 | 90.5 | 89.9 | 90.6 | 91.9 | 95.7 | 98.2 | 99.4 | 99.8 | 92.6 |
| Durable goods..... | 99.8 | 100.3 | 99.4 | 101.3 | 98.7 | 95.5 | 93.6 | 93.1 | 94.4 | 95.3 | 100.1 | 102.6 | 103.4 | 105.6 | 95.9 |
| Ordinance and accessories..... | 337.3 | 332.5 | 325.5 | 326.0 | 326.3 | 320.1 | 323.3 | 322.0 | 322.4 | 320.2 | 329.9 | 315.7 | 322.2 | 325.3 | 303.0 |
| Lumber and wood products..... | 75.8 | 78.4 | 75.5 | 78.6 | 72.1 | 67.2 | 63.4 | 62.5 | 64.5 | 65.5 | 68.7 | 75.3 | 78.1 | 78.4 | 72.7 |
| Furniture and fixtures..... | 111.0 | 108.3 | 102.0 | 102.0 | 97.7 | 98.5 | 97.3 | 97.0 | 95.9 | 102.2 | 105.1 | 109.4 | 110.0 | 108.7 | 97.2 |
| Stones, clay, and glass products..... | 100.8 | 102.1 | 100.2 | 100.1 | 96.9 | 93.5 | 91.4 | 89.0 | 90.2 | 93.2 | 99.2 | 102.2 | 103.0 | 104.6 | 94.7 |
| Primary metal industries..... | 91.6 | 88.8 | 88.8 | 88.7 | 85.2 | 80.8 | 78.1 | 77.3 | 77.7 | 78.0 | 80.3 | 83.2 | 84.7 | 91.1 | 83.7 |
| Fabricated metal products..... | 103.8 | 105.5 | 101.4 | 104.5 | 101.6 | 96.9 | 94.5 | 94.0 | 96.3 | 98.8 | 103.7 | 107.5 | 108.2 | 108.7 | 101.1 |
| Machinery (except electrical)..... | 94.0 | 93.2 | 93.6 | 95.2 | 94.9 | 94.7 | 93.3 | 93.4 | 93.2 | 93.0 | 93.9 | 94.9 | 96.1 | 101.0 | 88.9 |
| Electrical machinery..... | 138.2 | 134.1 | 129.3 | 132.8 | 120.4 | 128.5 | 128.6 | 129.9 | 130.9 | 128.6 | 135.1 | 131.9 | 137.1 | 132.6 | 116.9 |
| Transportation equipment..... | 89.0 | 97.3 | 105.7 | 107.8 | 107.2 | 102.0 | 100.1 | 99.3 | 103.8 | 111.8 | 115.0 | 117.8 | 113.9 | 120.4 | 111.6 |
| Instruments and related products..... | 114.4 | 113.7 | 110.2 | 112.2 | 110.2 | 108.7 | 109.3 | 109.2 | 111.5 | 110.3 | 116.0 | 116.4 | 117.1 | 117.1 | 105.4 |
| Miscellaneous manufacturing..... | 111.3 | 107.5 | 100.3 | 104.5 | 100.4 | 97.3 | 96.0 | 95.8 | 92.9 | 95.2 | 105.1 | 108.7 | 107.0 | 101.1 | 92.7 |
| Non-durable goods..... | 95.0 | 94.7 | 90.5 | 90.3 | 87.3 | 86.4 | 86.8 | 86.0 | 86.0 | 86.6 | 90.5 | 95.0 | 94.6 | 93.0 | 88.7 |
| Food and kindred products..... | 96.3 | 94.1 | 86.9 | 82.9 | 77.7 | 75.0 | 74.4 | 73.9 | 75.8 | 79.2 | 84.0 | 91.2 | 87.4 | 83.7 | 84.2 |
| Tobacco manufactures..... | 99.2 | 78.2 | 59.0 | 63.2 | 80.1 | 61.3 | 61.9 | 66.5 | 70.8 | 76.3 | 76.7 | 94.8 | 97.2 | 77.1 | 77.7 |
| Textile-mill products..... | 71.3 | 71.2 | 68.9 | 70.5 | 68.5 | 66.9 | 65.9 | 65.4 | 64.5 | 65.8 | 68.3 | 68.7 | 68.5 | 74.4 | 69.2 |
| Apparel and other finished textile products..... | 102.4 | 107.0 | 99.1 | 99.6 | 96.8 | 98.1 | 102.0 | 99.4 | 95.0 | 93.3 | 101.2 | 101.9 | 103.1 | 105.1 | 96.8 |
| Paper and allied products..... | 112.5 | 112.1 | 110.2 | 111.4 | 107.8 | 107.4 | 106.2 | 105.6 | 105.8 | 105.6 | 109.4 | 111.5 | 112.3 | 112.7 | 108.6 |
| Printing and publishing..... | 116.8 | 114.8 | 113.7 | 113.8 | 113.0 | 113.2 | 114.5 | 113.1 | 114.2 | 115.2 | 118.1 | 115.6 | 118.0 | 112.8 | 109.0 |
| Chemicals and allied products..... | 105.9 | 105.5 | 104.5 | 105.7 | 104.6 | 105.9 | 103.9 | 101.9 | 102.7 | 102.8 | 104.6 | 105.1 | 105.1 | 104.3 | 99.2 |
| Products of petroleum and coal..... | 79.2 | 79.4 | 79.7 | 80.0 | 78.1 | 77.7 | 76.2 | 75.2 | 78.4 | 77.8 | 78.8 | 80.7 | 82.3 | 84.1 | 84.2 |
| Rubber products..... | 98.4 | 96.7 | 95.7 | 94.6 | 92.1 | 89.4 | 87.2 | 87.6 | 91.6 | 93.1 | 94.9 | 99.0 | 97.1 | 103.5 | 92.0 |
| Leather and leather products..... | 88.3 | 90.2 | 89.7 | 89.9 | 84.5 | 82.2 | 86.6 | 88.6 | 88.9 | 83.8 | 85.8 | 84.2 | 85.0 | 92.2 | 86.0 |
| Payrolls | | | | | | | | | | | | | | | |
| Mining..... | 100.4 | 102.9 | 101.6 | 97.2 | 94.5 | 91.5 | 94.5 | 97.7 | 97.0 | 97.0 | 101.6 | 101.6 | 105.0 | 104.9 | |
| Contract construction..... | 279.1 | 268.2 | 262.5 | 232.7 | 211.3 | 191.6 | 181.7 | 193.9 | 197.1 | 227.1 | 258.4 | 250.4 | 216.9 | 200.5 | |
| Manufacturing..... | 172.3 | 172.3 | 169.2 | 170.7 | 164.8 | 160.3 | 158.2 | 157.1 | 158.5 | 160.6 | 166.2 | 170.5 | 172.5 | 167.2 | 148.7 |

¹ For comparability of data with those published in issues prior to August 1958, see footnote 1, table A-2.

For mining and manufacturing, data refer to production and related workers; for contract construction, to construction workers.

³ Preliminary.

TABLE C-4. Gross and spendable average weekly earnings of production workers in manufacturing, in current and 1947-49 dollars¹

| Item | 1961 | | | | | | | | | | 1960 | | | | | Annual average | |
|------------------------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|--|
| | Aug. ³ | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. | 1959 | 1958 | | |
| Manufacturing | | | | | | | | | | | | | | | | | |
| Gross average weekly earnings: | | | | | | | | | | | | | | | | | |
| Current dollars..... | \$93.83 | \$94.00 | \$94.24 | \$92.66 | \$91.57 | \$90.71 | \$90.25 | \$90.25 | \$89.55 | \$90.39 | \$91.31 | \$91.08 | \$90.35 | \$89.47 | \$83.50 | | |
| 1947-49 dollars..... | 73.30 | 73.38 | 73.86 | 72.73 | 71.82 | 71.15 | 70.78 | 70.84 | 70.24 | 70.95 | 71.73 | 71.83 | 71.37 | 71.51 | 67.61 | | |
| Spendable average weekly earnings: | | | | | | | | | | | | | | | | | |
| Worker with no dependents: | | | | | | | | | | | | | | | | | |
| Current dollars..... | 75.79 | 75.93 | 76.12 | 74.85 | 74.00 | 73.34 | 72.96 | 72.98 | 72.44 | 73.09 | 73.90 | 73.62 | 73.06 | 72.83 | 68.45 | | |
| 1947-49 dollars..... | 59.21 | 59.27 | 59.66 | 58.75 | 58.04 | 57.52 | 57.24 | 57.28 | 56.82 | 57.37 | 57.97 | 58.06 | 57.71 | 58.45 | 55.43 | | |
| Worker with 3 dependents: | | | | | | | | | | | | | | | | | |
| Current dollars..... | 83.40 | 83.54 | 83.74 | 82.44 | 81.57 | 80.89 | 80.53 | 80.53 | 79.97 | 80.64 | 81.36 | 81.18 | 80.61 | 80.36 | 75.88 | | |
| 1947-49 dollars..... | 65.16 | 65.21 | 65.63 | 64.71 | 63.98 | 63.44 | 63.16 | 63.21 | 62.72 | 63.30 | 63.91 | 64.02 | 63.67 | 64.49 | 61.44 | | |

¹ See footnote 1, table C-3.

Spendable average weekly earnings are obtained by deducting from gross average weekly earnings, Federal social security and income taxes for which the worker is liable. The amount of tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Spendable earnings have been computed for 2 types of income receivers: (1) a worker with no dependents, and (2) a worker with 3 dependents. The primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income receivers.

The computations of spendable earnings for both the worker with no dependents and the worker with 3 dependents are based upon the gross average

weekly earnings for all production workers in manufacturing without direct regard to marital status, family composition, or other sources of income.

Gross and spendable average weekly earnings expressed in 1947-49 dollars indicate changes in the level of average weekly earnings after adjustment for changes in purchasing power as measured by the Bureau's Consumer Price Index.

³ Preliminary.

NOTE: For a description of these series, see The Calculation and Uses of the Spendable Earnings Series (in Monthly Labor Review, January 1959, pp. 50-54).

D.—Consumer and Wholesale Prices

TABLE D-1. Consumer Price Index¹—All-city average: All items, groups, subgroups, and special groups of items

(1947-49=100)

| Group | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|----------------|--|
| | Sept. | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 | 1959 | |
| All items..... | 128.3 | 128.0 | 128.1 | 127.6 | 127.4 | 127.5 | 127.5 | 127.5 | 127.4 | 127.5 | 127.4 | 127.3 | 126.8 | 126.5 | 124.6 | |
| Food ¹ | 121.1 | 121.2 | 122.0 | 120.9 | 120.7 | 121.2 | 121.2 | 121.4 | 121.3 | 121.4 | 121.1 | 120.9 | 120.2 | 119.7 | 118.3 | |
| Food at home..... | 117.8 | 118.2 | 119.0 | 117.8 | 117.7 | 118.3 | 118.3 | 118.6 | 118.5 | 118.7 | 118.4 | 118.2 | 117.4 | 116.9 | 115.9 | |
| Cereals and bakery products..... | 139.7 | 139.6 | 139.4 | 139.7 | 139.7 | 139.7 | 139.6 | 139.4 | 139.1 | 139.0 | 138.6 | 138.5 | 137.8 | 136.8 | 134.2 | |
| Meats, poultry, and fish..... | 109.4 | 108.4 | 107.8 | 107.4 | 108.7 | 110.5 | 111.4 | 111.8 | 111.6 | 110.5 | 109.9 | 110.0 | 110.2 | 109.3 | 110.7 | |
| Dairy products..... | 119.0 | 118.5 | 118.0 | 117.3 | 117.5 | 117.9 | 118.5 | 119.0 | 119.1 | 119.3 | 118.9 | 118.4 | 117.5 | 116.8 | 114.3 | |
| Fruits and vegetables..... | 126.5 | 126.4 | 126.2 | 125.4 | 125.2 | 125.4 | 125.8 | 127.2 | 126.1 | 126.3 | 126.2 | 126.4 | 126.6 | 126.3 | 125.1 | |
| Other foods at home ² | 108.9 | 107.6 | 107.9 | 106.0 | 105.8 | 106.4 | 107.6 | 108.5 | 109.5 | 111.6 | 111.6 | 112.0 | 109.3 | 106.8 | 106.1 | |
| Housing ³ | 132.6 | 132.3 | 132.4 | 132.4 | 132.2 | 132.3 | 132.5 | 132.4 | 132.3 | 132.3 | 132.1 | 132.2 | 132.0 | 131.5 | 129.2 | |
| Rent..... | 143.9 | 143.6 | 143.6 | 143.5 | 143.5 | 143.4 | 143.3 | 143.1 | 143.1 | 142.9 | 142.8 | 142.7 | 142.5 | 142.1 | 139.7 | |
| Gas and electricity..... | 125.7 | 125.6 | 125.6 | 126.3 | 126.2 | 125.8 | 125.9 | 125.9 | 125.9 | 125.6 | 125.7 | 125.7 | 125.7 | 124.8 | 119.9 | |
| Solid and petroleum fuels..... | 137.2 | 136.9 | 135.9 | 135.6 | 136.5 | 139.9 | 141.3 | 141.3 | 139.6 | 137.0 | 136.3 | 136.1 | 134.8 | 135.6 | 136.6 | |
| Household operation..... | 138.9 | 138.8 | 139.1 | 138.9 | 138.7 | 138.7 | 138.5 | 138.3 | 138.3 | 138.3 | 138.3 | 138.1 | 138.0 | 137.4 | 134.3 | |
| Apparel..... | 111.1 | 109.9 | 109.9 | 109.6 | 109.6 | 109.5 | 109.8 | 109.6 | 109.4 | 110.6 | 110.7 | 111.0 | 110.6 | 109.4 | 107.9 | |
| Men's and boys'..... | 111.9 | 111.1 | 111.5 | 111.4 | 111.7 | 111.7 | 111.4 | 111.4 | 111.4 | 112.0 | 112.0 | 112.2 | 112.2 | 110.4 | 108.4 | |
| Women's and girls'..... | 102.1 | 100.2 | 100.0 | 99.4 | 99.3 | 99.1 | 99.9 | 99.5 | 99.1 | 101.1 | 101.4 | 101.8 | 101.1 | 100.0 | 99.8 | |
| Footwear..... | 141.5 | 141.2 | 141.0 | 140.8 | 140.8 | 140.8 | 140.9 | 140.9 | 140.3 | 140.7 | 140.3 | 140.5 | 140.2 | 139.9 | 135.2 | |
| Other apparel ⁴ | 93.4 | 92.9 | 92.9 | 92.6 | 92.8 | 92.8 | 92.6 | 92.9 | 93.0 | 94.0 | 94.1 | 93.9 | 93.8 | 93.3 | 92.3 | |
| Transportation..... | 149.4 | 149.3 | 148.3 | 147.7 | 146.6 | 145.8 | 145.7 | 146.2 | 145.0 | 146.5 | 146.5 | 144.6 | 144.7 | 140.2 | 146.3 | |
| Private..... | 136.9 | 136.8 | 135.9 | 135.3 | 134.2 | 133.4 | 133.4 | 133.9 | 134.0 | 134.5 | 134.4 | 134.1 | 132.8 | 134.5 | 135.2 | |
| Public..... | 209.4 | 209.1 | 208.5 | 207.3 | 206.5 | 206.5 | 206.7 | 206.7 | 205.8 | 202.9 | *202.9 | *201.2 | *200.3 | *199.3 | *192.7 | |
| Medical care..... | 161.7 | 161.4 | 161.2 | 160.9 | 160.4 | 159.9 | 159.6 | 159.4 | 158.5 | 158.0 | 157.9 | 157.3 | 156.9 | 156.2 | 150.8 | |
| Personal care..... | 134.3 | 134.2 | 134.3 | 133.9 | 133.8 | 133.8 | 133.6 | 133.8 | 133.7 | 133.7 | 133.9 | 134.0 | 133.9 | 133.3 | 131.2 | |
| Reading and recreation..... | 125.0 | 124.4 | 124.1 | 123.5 | 123.0 | 124.1 | 123.4 | 122.7 | 122.2 | 122.3 | 122.5 | 121.9 | 122.1 | 121.5 | 118.6 | |
| Other goods and services..... | 133.8 | 133.6 | 133.6 | 133.1 | 133.1 | 132.6 | 132.6 | 132.6 | 132.6 | 132.7 | 132.7 | 132.7 | 132.7 | 132.2 | 129.7 | |
| Special groups: | | | | | | | | | | | | | | | | |
| All items less food..... | 132.0 | 131.6 | 131.4 | 131.2 | 131.0 | 130.8 | 130.9 | 130.8 | 130.6 | 130.8 | 130.8 | 130.7 | 130.3 | 130.0 | 127.9 | |
| All items less shelter..... | 125.8 | 125.6 | 125.7 | 125.2 | 124.9 | 125.0 | 125.0 | 125.0 | 124.8 | 125.0 | 125.0 | 124.8 | 124.3 | 124.0 | 122.2 | |
| All commodities less food..... | 116.6 | 116.1 | 116.0 | 115.6 | 115.3 | 115.2 | 115.4 | 115.5 | 115.4 | 115.9 | 115.9 | 115.9 | 115.6 | 115.7 | 115.1 | |
| All commodities..... | 118.7 | 118.4 | 118.7 | 118.0 | 117.7 | 117.9 | 118.0 | 118.1 | 118.0 | 118.4 | 118.3 | 118.2 | 117.7 | 117.5 | 116.8 | |
| Nondurables ⁵ | 121.0 | 120.8 | 121.1 | 120.4 | 120.2 | 120.4 | 120.7 | 120.8 | 120.7 | 121.0 | 120.9 | 120.7 | 120.3 | 119.6 | 118.1 | |
| Nondurables less food..... | 121.5 | 120.7 | 120.6 | 120.3 | 120.0 | 120.0 | 120.7 | 120.6 | 120.5 | 121.0 | 121.1 | 120.9 | 120.9 | 120.1 | 118.3 | |
| Nondurables less food and apparel..... | 130.4 | 130.0 | 129.9 | 129.5 | 129.0 | 129.0 | 130.0 | 130.1 | 130.0 | 130.0 | 130.0 | 129.5 | 129.8 | 129.2 | 127.3 | |
| Durables ⁶ | 111.9 | 111.9 | 111.5 | 111.2 | 110.8 | 110.7 | 109.9 | 110.3 | 110.2 | 110.8 | 110.7 | 110.9 | 110.0 | 111.6 | 113.0 | |
| Durables less cars..... | 102.1 | 102.1 | 102.1 | 101.8 | 101.8 | 101.9 | 102.0 | 102.1 | 102.4 | 102.8 | 102.8 | 103.0 | 103.0 | 103.2 | 103.8 | |
| All services ⁷ | 153.2 | 153.0 | 152.8 | 152.7 | 152.5 | 152.3 | 152.2 | 151.9 | 151.7 | 151.4 | 151.3 | 151.2 | 150.8 | 150.0 | 145.5 | |
| All services less rent..... | 155.8 | 155.4 | 155.2 | 155.0 | 154.9 | 154.7 | 154.6 | 154.2 | 154.0 | 153.6 | 153.6 | 153.4 | 153.0 | 152.1 | 147.5 | |
| Household operation services, gas, and electricity..... | 140.8 | 140.6 | 140.7 | 140.8 | 140.7 | 140.5 | 140.4 | 140.2 | 140.1 | 140.0 | 140.1 | 140.1 | 139.8 | 139.0 | 134.8 | |
| Transportation services..... | 189.9 | 189.8 | 189.4 | 188.3 | 188.8 | 188.5 | 188.2 | 187.7 | 187.6 | 186.8 | 187.0 | 186.3 | 185.8 | 184.9 | 180.3 | |
| Medical care services..... | 169.8 | 169.5 | 169.3 | 168.8 | 168.2 | 167.7 | 167.3 | 167.1 | 165.9 | 165.3 | 165.1 | 164.3 | 163.6 | 162.8 | 158.3 | |
| Other services..... | 138.2 | 137.9 | 137.7 | 137.6 | 137.6 | 137.5 | 137.6 | 137.1 | 137.2 | 136.8 | 136.7 | 136.8 | 136.5 | 135.6 | 131.7 | |

¹ The Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Data for 46 large, medium-size, and small cities are combined for the all-city average.

² In addition to subgroups shown here, total food includes restaurant meals and other food bought and eaten away from home.

³ Includes eggs, fats and oils, sugar and sweets, beverages (nonalcoholic), and other miscellaneous foods.

⁴ In addition to subgroups shown here, total housing includes the purchase price of homes and other homeowner costs.

⁵ Includes yard goods, diapers, and miscellaneous items.

⁶ Revised.

⁷ Includes food, house paint, solid fuels, fuel oil, textile housefurnishings, household paper, electric light bulbs, laundry soap and detergents, apparel

(except shoe repairs), gasoline, motor oil, prescriptions and drugs, toll-free goods, nondurable toys, newspapers, cigarettes, cigars, beer and whiskey.

⁸ Includes water heaters, central heating furnaces, kitchen sinks, sink faucets, porch flooring, household appliances, furniture and bedding, floor coverings, dinnerware, automobiles, tires, radio and television sets, durable toys, and sporting goods.

⁹ Includes rent, home purchase, real estate taxes, mortgage interest, property insurance, repainting garage, repainting rooms, reshingling roof, refinishing floors, gas, electricity, dry cleaning, laundry service, domestic service, telephone, water, postage, shoe repairs, auto repairs, auto insurance, auto registration, transit fares, railroad fares, professional medical services, hospital services, hospitalization and surgical insurance, barber and beauty shop services, television repairs, and motion picture admissions.

TABLE D-2. Consumer Price Index ¹—All items and food indexes, by city

[1947-49=100]

| City | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|--|
| | Sept. | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 | 1959 | |
| All Items | | | | | | | | | | | | | | | | |
| All-city average ¹ | 128.3 | 128.0 | 128.1 | 127.6 | 127.4 | 127.5 | 127.5 | 127.5 | 127.4 | 127.5 | 127.4 | 127.3 | 126.8 | 126.5 | 124.6 | |
| Atlanta, Ga..... | 128.3 | (9) | (9) | 127.4 | (9) | (9) | 127.7 | (9) | (9) | 127.7 | (9) | (9) | 127.9 | 127.2 | 125.4 | |
| Baltimore, Md..... | 129.6 | (9) | (9) | 129.8 | (9) | (9) | 129.5 | (9) | (9) | 129.3 | (9) | (9) | 128.7 | 128.3 | 126.8 | |
| Boston, Mass..... | (9) | (9) | 130.4 | (9) | (9) | 130.0 | (9) | (9) | 129.3 | (9) | (9) | 129.1 | (9) | 128.4 | 125.9 | |
| Chicago, Ill..... | 131.1 | 130.8 | 130.9 | 129.7 | 129.9 | 130.1 | 130.2 | 130.5 | 130.4 | 130.6 | 130.5 | 130.7 | 130.4 | 129.9 | 128.1 | |
| Cincinnati, Ohio..... | 125.4 | (9) | (9) | 124.6 | (9) | (9) | 124.8 | (9) | (9) | 125.0 | (9) | (9) | 124.8 | 124.4 | 123.1 | |
| Cleveland, Ohio..... | (9) | 128.7 | (9) | (9) | 127.9 | (9) | (9) | 128.3 | (9) | (9) | 127.9 | (9) | (9) | 127.1 | 125.6 | |
| Detroit, Mich..... | 124.9 | 125.8 | 125.5 | 125.8 | 125.6 | 125.6 | 125.8 | 126.4 | 126.3 | 125.8 | 125.7 | 125.7 | 125.4 | 124.9 | 123.8 | |
| Houston, Tex..... | (9) | 126.3 | (9) | (9) | 126.1 | (9) | (9) | 125.1 | (9) | 125.4 | (9) | 126.4 | (9) | 125.8 | 124.6 | |
| Kansas City, Mo..... | (9) | (9) | 129.8 | (9) | (9) | 129.5 | (9) | 127.6 | (9) | 127.6 | (9) | 128.2 | (9) | 127.5 | 125.9 | |
| Los Angeles, Calif..... | 131.3 | 131.1 | 131.4 | 131.4 | 131.0 | 131.1 | 130.9 | 131.4 | 131.2 | 131.0 | 130.6 | 130.3 | 129.8 | 129.8 | 127.4 | |
| Minneapolis, Minn..... | (9) | (9) | 129.2 | (9) | (9) | 129.0 | (9) | 127.8 | (9) | 127.8 | (9) | 128.5 | (9) | 127.5 | 125.6 | |
| New York, N.Y..... | 126.8 | 125.4 | 126.4 | 125.8 | 125.6 | 125.8 | 126.1 | 126.2 | 126.1 | 126.3 | 126.5 | 126.1 | 125.5 | 125.2 | 122.8 | |
| Philadelphia, Pa..... | 128.4 | 128.0 | 128.3 | 127.8 | 127.9 | 128.0 | 127.7 | 127.9 | 127.8 | 128.0 | 127.9 | 127.7 | 127.2 | 126.7 | 124.5 | |
| Pittsburgh, Pa..... | (9) | (9) | 129.6 | (9) | (9) | 129.2 | (9) | 129.2 | (9) | 129.2 | (9) | 129.0 | (9) | 128.3 | 125.5 | |
| Portland, Oreg..... | (9) | (9) | 129.3 | (9) | (9) | 128.3 | (9) | (9) | 128.8 | (9) | (9) | 127.2 | (9) | 127.5 | 125.7 | |
| St. Louis, Mo..... | 129.2 | (9) | (9) | 129.0 | (9) | (9) | 128.9 | (9) | (9) | 127.9 | (9) | (9) | 127.4 | 127.1 | 126.3 | |
| San Francisco, Calif..... | 134.9 | (9) | (9) | 133.8 | (9) | (9) | 133.8 | (9) | (9) | 133.9 | (9) | (9) | 133.0 | 132.6 | 130.0 | |
| Seranton, Pa..... | (9) | 124.3 | (9) | (9) | 124.1 | (9) | (9) | 123.5 | (9) | (9) | 123.9 | (9) | (9) | 122.3 | 120.8 | |
| Seattle, Wash..... | (9) | 131.8 | (9) | (9) | 131.7 | (9) | (9) | 130.8 | (9) | (9) | 130.5 | (9) | (9) | 129.8 | 128.2 | |
| Washington, D.C..... | (9) | 125.2 | (9) | (9) | 124.3 | (9) | (9) | 124.5 | (9) | (9) | 123.8 | (9) | (9) | 123.0 | 121.7 | |
| Food | | | | | | | | | | | | | | | | |
| All-city average ¹ | 121.1 | 121.2 | 122.0 | 120.9 | 120.7 | 121.2 | 121.2 | 121.4 | 121.3 | 121.4 | 121.1 | 120.9 | 120.2 | 119.7 | 118.3 | |
| Atlanta, Ga..... | 119.1 | 118.5 | 118.9 | 116.6 | 116.2 | 117.0 | 117.4 | 117.0 | 118.1 | 118.2 | 118.7 | 118.7 | 118.2 | 117.0 | 115.7 | |
| Baltimore, Md..... | 121.6 | 122.3 | 122.9 | 121.7 | 120.8 | 121.2 | 121.0 | 120.9 | 121.0 | 121.2 | 120.7 | 121.0 | 120.1 | 119.8 | 118.0 | |
| Boston, Mass..... | 120.6 | 121.4 | 122.0 | 119.6 | 119.9 | 120.5 | 120.3 | 121.0 | 120.5 | 121.0 | 120.5 | 120.3 | 120.4 | 119.4 | 118.7 | |
| Chicago, Ill..... | 119.3 | 119.5 | 120.1 | 118.4 | 118.6 | 118.8 | 118.7 | 119.3 | 119.2 | 119.1 | 118.7 | 118.6 | 118.1 | 117.5 | 115.8 | |
| Cincinnati, Ohio..... | 120.8 | 122.0 | 123.2 | 121.1 | 121.5 | 121.7 | 121.5 | 122.1 | 122.4 | 122.2 | 121.9 | 122.6 | 121.3 | 120.8 | 118.8 | |
| Cleveland, Ohio..... | 116.5 | 116.6 | 116.9 | 116.0 | 115.7 | 116.3 | 115.9 | 116.9 | 116.8 | 116.8 | 117.1 | 117.0 | 116.2 | 115.8 | 114.1 | |
| Detroit, Mich..... | 118.7 | 120.7 | 121.8 | 121.0 | 121.1 | 121.3 | 121.1 | 121.3 | 120.9 | 120.1 | 119.4 | 119.6 | 118.9 | 118.7 | 117.5 | |
| Houston, Tex..... | 117.0 | 117.0 | 116.3 | 115.8 | 116.1 | 116.7 | 116.0 | 116.3 | 116.2 | 116.2 | 116.5 | 116.2 | 115.8 | 115.0 | 114.7 | |
| Kansas City, Mo..... | 114.6 | 115.0 | 116.2 | 115.5 | 114.7 | 115.3 | 115.5 | 113.9 | 114.6 | 114.8 | 114.5 | 113.9 | 113.1 | 112.9 | 112.2 | |
| Los Angeles, Calif..... | 125.8 | 125.3 | 126.0 | 125.6 | 127.5 | 128.3 | 128.1 | 128.2 | 128.4 | 128.1 | 127.3 | 127.0 | 126.5 | 126.1 | 123.5 | |
| Minneapolis, Minn..... | 117.5 | 117.5 | 119.2 | 118.7 | 118.6 | 118.6 | 119.0 | 119.2 | 119.4 | 119.7 | 119.2 | 119.7 | 118.6 | 118.4 | 118.0 | |
| New York, N.Y..... | 122.7 | 122.2 | 122.6 | 121.2 | 121.0 | 121.6 | 122.5 | 122.8 | 122.7 | 122.8 | 123.6 | 123.2 | 122.5 | 122.0 | 120.3 | |
| Philadelphia, Pa..... | 122.6 | 123.4 | 124.3 | 122.4 | 122.6 | 123.0 | 123.3 | 123.8 | 123.5 | 123.9 | 123.9 | 124.0 | 123.1 | 122.1 | 120.9 | |
| Pittsburgh, Pa..... | 122.1 | 122.9 | 123.6 | 122.6 | 121.9 | 122.4 | 122.6 | 123.2 | 123.0 | 122.2 | 122.4 | 122.6 | 121.9 | 121.2 | 119.8 | |
| Portland, Oreg..... | 124.2 | 123.7 | 123.5 | 122.9 | 122.5 | 123.7 | 122.7 | 122.0 | 122.4 | 122.2 | 121.4 | 121.3 | 121.1 | 121.0 | 120.7 | |
| St. Louis, Mo..... | 121.0 | 121.0 | 121.3 | 121.7 | 121.5 | 121.7 | 121.4 | 121.3 | 121.3 | 121.8 | 120.7 | 120.2 | 118.9 | 119.0 | 118.7 | |
| San Francisco, Calif..... | 126.2 | 125.0 | 126.1 | 126.2 | 126.2 | 126.2 | 126.6 | 126.5 | 126.1 | 126.2 | 125.5 | 125.0 | 125.2 | 124.4 | 122.6 | |
| Seranton, Pa..... | 116.5 | 116.7 | 118.5 | 116.9 | 116.7 | 116.9 | 117.7 | 117.7 | 117.1 | 117.4 | 117.0 | 117.0 | 115.9 | 115.5 | 115.4 | |
| Seattle, Wash..... | 125.1 | 124.9 | 125.6 | 125.6 | 125.4 | 125.4 | 124.7 | 124.7 | 124.4 | 124.6 | 123.4 | 123.3 | 123.2 | 122.7 | 120.8 | |
| Washington, D.C..... | 121.5 | 121.9 | 122.2 | 121.2 | 120.7 | 121.4 | 121.3 | 121.1 | 121.4 | 121.7 | 121.2 | 121.6 | 120.8 | 120.0 | 119.0 | |

¹ See footnote 1, table D-1. Indexes measure time-to-time changes in prices of goods and services purchased by urban wage-earner and clerical-worker families. They do not indicate whether it costs more to live in one city than in another.

² Average of 46 cities.

³ All items indexes are computed monthly for 8 cities and once every 3 months on a rotating cycle for 15 other cities.

TABLE D-3. Indexes of wholesale prices,¹ by group and subgroup of commodities
(1947-49=100, unless otherwise specified)

| Commodity group | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|--|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|----------------|--|
| | Sept. ² | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 ³ | 1959 | |
| All commodities..... | 119.8 | 118.9 | 118.6 | 118.2 | 118.7 | 119.4 | 119.9 | 120.0 | 119.9 | 119.5 | 119.6 | 119.6 | 119.2 | 119.6 | 119.5 | |
| Farm products and processed foods..... | 97.9 | 98.6 | 97.5 | 96.2 | 97.4 | 98.8 | 100.0 | 100.5 | 100.0 | 99.2 | 99.7 | 99.5 | 98.1 | 98.5 | 98.2 | |
| Farm products..... | 87.2 | 88.6 | 87.1 | 85.1 | 86.8 | 88.5 | 89.9 | 90.0 | 89.7 | 88.7 | 89.9 | 89.5 | 87.7 | 88.8 | 89.1 | |
| Fresh and dried fruits and vegetables..... | 95.0 | 97.3 | 104.3 | 103.3 | 101.4 | 100.2 | 105.9 | 99.8 | 103.7 | 99.5 | 107.5 | 109.2 | 104.7 | 106.7 | 102.7 | |
| Grains..... | 78.0 | 78.1 | 77.8 | 74.2 | 74.8 | 73.8 | 76.4 | 76.0 | 75.2 | 72.7 | 70.3 | 73.5 | 74.9 | 75.7 | 77.3 | |
| Livestock and live poultry..... | 77.6 | 80.3 | 78.5 | 75.4 | 78.2 | 82.0 | 83.1 | 85.3 | 84.7 | 82.8 | 81.8 | 80.7 | 79.0 | 82.6 | 85.1 | |
| Plant and animal fibers..... | 98.7 | 98.4 | 90.7 | 96.2 | 95.2 | 93.4 | 92.8 | 91.2 | 90.7 | 90.7 | 90.8 | 90.8 | 92.1 | 94.2 | 98.2 | |
| Fluid milk..... | 99.8 | 98.4 | 98.1 | 94.9 | 95.6 | 97.0 | 98.7 | 99.6 | 101.1 | 102.3 | 102.3 | 101.5 | 99.8 | 98.0 | 94.4 | |
| Eggs..... | 76.6 | 80.7 | 75.5 | 63.3 | 63.3 | 66.5 | 75.7 | 81.2 | 75.2 | 87.7 | 108.1 | 98.9 | 85.5 | 77.3 | 65.6 | |
| Hay, hayseeds, and oilseeds..... | 80.0 | 82.9 | 83.7 | 83.6 | 92.1 | 96.4 | 87.5 | 81.3 | 79.5 | 74.1 | 72.5 | 72.2 | 72.3 | 74.7 | 76.6 | |
| Other farm products..... | 131.2 | 129.3 | 129.3 | 129.0 | 129.5 | 129.4 | 129.6 | 129.6 | 128.3 | 130.4 | 129.1 | 130.4 | 129.5 | 128.5 | 132.0 | |
| Processed foods..... | 108.1 | 108.1 | 107.5 | 106.7 | 107.5 | 108.7 | 109.6 | 110.5 | 109.9 | 109.2 | 109.1 | 109.0 | 108.1 | 107.7 | 107.0 | |
| Cereal and bakery products..... | 124.3 | 123.9 | 123.9 | 123.7 | 123.6 | 123.6 | 123.6 | 123.5 | 123.5 | 123.5 | 123.1 | 123.1 | 122.4 | 121.8 | 119.3 | |
| Meats, poultry, and fish..... | 94.3 | 94.8 | 92.5 | 89.9 | 91.8 | 94.3 | 96.1 | 95.5 | 95.3 | 97.3 | 96.6 | 97.8 | 96.0 | 96.7 | 98.2 | |
| Dairy products and ice cream..... | 121.9 | 121.0 | 120.4 | 119.7 | 119.5 | 119.9 | 120.7 | 119.8 | 121.3 | 122.0 | 121.7 | 121.3 | 120.5 | 118.5 | 114.3 | |
| Canned and frozen fruits and vegetables..... | 107.2 | 107.4 | 109.0 | 108.7 | 109.0 | 111.1 | 111.5 | 112.0 | 111.8 | 110.1 | 109.4 | 108.8 | 107.7 | 107.0 | 109.0 | |
| Sugar and confectionery..... | 112.8 | 113.0 | 114.8 | 116.3 | 115.8 | 114.9 | 115.1 | 115.8 | 116.2 | 116.3 | 117.4 | 117.1 | 117.9 | 115.5 | 115.1 | |
| Packaged beverage materials..... | 138.6 | 138.6 | 139.1 | 139.1 | 139.1 | 139.1 | 139.1 | 139.1 | 139.1 | 140.9 | 140.9 | 140.9 | 140.9 | 143.3 | 146.5 | |
| Animal fats and oils..... | 59.9 | 59.7 | 57.6 | 57.2 | 65.0 | 72.2 | 76.8 | 77.4 | 65.0 | 62.4 | 60.1 | 62.0 | 60.0 | 58.4 | 54.6 | |
| Crude vegetable oils..... | 58.5 | 59.9 | 59.6 | 61.9 | 66.9 | 69.4 | 66.7 | 63.2 | 57.1 | 52.4 | 53.1 | 49.9 | 48.7 | 49.1 | 53.1 | |
| Refined vegetable oils..... | 70.1 | 68.3 | 67.7 | 68.0 | 71.8 | 71.9 | 70.5 | 67.5 | 64.4 | 61.2 | 59.3 | 57.4 | 55.2 | 56.7 | 68.0 | |
| Vegetable oil and products..... | 82.3 | 82.4 | 83.8 | 84.8 | 85.9 | 85.0 | 84.4 | 80.4 | 77.9 | 77.4 | 76.1 | 75.2 | 74.7 | 73.2 | 74.0 | |
| Other processed foods..... | 102.3 | 102.1 | 102.5 | 103.1 | 102.6 | 102.4 | 103.3 | 102.2 | 102.5 | 100.8 | 102.8 | 100.5 | 101.4 | 102.2 | 96.7 | |
| All commodities except farm products..... | 124.0 | 124.0 | 123.9 | 123.8 | 124.0 | 124.6 | 124.9 | 125.0 | 124.9 | 124.6 | 124.6 | 124.6 | 124.4 | 124.7 | 124.5 | |
| All commodities except farm and foods..... | 127.5 | 127.4 | 127.4 | 127.4 | 127.6 | 128.0 | 128.2 | 128.1 | 128.1 | 127.9 | 127.9 | 128.0 | 127.9 | 128.3 | 128.2 | |
| Textile products and apparel..... | 94.4 | 94.2 | 93.9 | 93.7 | 94.0 | 94.1 | 94.4 | 94.7 | 94.8 | 95.2 | 95.4 | 95.8 | 95.9 | 96.1 | 95.0 | |
| Cotton products..... | 91.0 | 90.4 | 89.7 | 89.5 | 89.9 | 89.9 | 90.2 | 90.2 | 90.8 | 91.2 | 91.7 | 92.8 | 93.4 | 94.2 | 91.7 | |
| Wool products..... | 101.8 | 101.7 | 101.2 | 101.0 | 100.9 | 100.1 | 99.5 | 99.9 | 100.1 | 100.8 | 101.3 | 101.1 | 101.2 | 102.1 | 101.6 | |
| Manmade fiber textile products..... | 75.1 | 75.1 | 75.1 | 75.1 | 75.4 | 75.8 | 76.3 | 77.2 | 77.3 | 77.8 | 78.2 | 78.6 | 78.6 | 79.1 | 81.1 | |
| Silk products..... | 136.2 | 136.2 | 131.2 | 130.8 | 131.5 | 129.5 | 129.5 | 129.3 | 130.9 | 125.7 | 125.9 | 128.5 | 128.4 | 122.9 | 113.5 | |
| Apparel..... | 100.7 | 100.6 | 100.4 | 100.4 | 100.3 | 100.4 | 100.5 | 100.5 | 101.0 | 101.0 | 101.1 | 101.1 | 101.0 | 100.9 | 100.0 | |
| Other textile products..... | 90.5 | 91.0 | 90.7 | 85.7 | 92.8 | 93.6 | 100.3 | 101.3 | 99.2 | 92.6 | 92.1 | 91.3 | 85.7 | 85.2 | 76.8 | |
| Hides, skins, leather, and leather products..... | 113.5 | 113.1 | 111.1 | 110.1 | 110.7 | 109.9 | 109.5 | 108.0 | 108.3 | 108.8 | 108.5 | 108.5 | 108.1 | 110.3 | 114.3 | |
| Hides and skins..... | 82.5 | 82.9 | 76.2 | 68.1 | 71.0 | 68.0 | 68.0 | 60.5 | 61.7 | 64.9 | 65.8 | 64.1 | 62.3 | 65.1 | 60.7 | |
| Leather..... | 107.6 | 108.3 | 102.6 | 102.6 | 104.1 | 102.2 | 100.2 | 97.3 | 97.8 | 99.4 | 97.1 | 98.1 | 97.5 | 101.5 | 111.8 | |
| Footwear..... | 133.9 | 133.5 | 132.9 | 132.8 | 132.8 | 132.7 | 132.7 | 132.7 | 132.7 | 132.5 | 132.5 | 132.5 | 132.5 | 133.0 | 129.5 | |
| Other leather products..... | 105.4 | 105.1 | 104.3 | 104.5 | 104.6 | 104.3 | 103.8 | 103.9 | 104.2 | 103.9 | 104.2 | 104.0 | 103.9 | 105.8 | 109.0 | |
| Fuel and related products, and power..... | 113.7 | 114.4 | 114.6 | 114.3 | 113.6 | 113.7 | 113.5 | 117.7 | 117.2 | 116.2 | 116.1 | 116.1 | 116.1 | 113.8 | 112.7 | |
| Coal..... | 120.1 | 119.2 | 118.7 | 117.7 | 117.4 | 119.6 | 122.8 | 123.4 | 123.4 | 123.1 | 123.0 | 122.5 | 122.4 | 121.8 | 122.6 | |
| Coke..... | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 170.4 | 169.8 | |
| Gas fuels..... | 116.9 | 116.6 | 115.6 | 115.4 | 118.7 | 118.3 | 121.8 | 122.3 | 121.1 | 120.0 | 120.2 | 120.9 | 121.3 | 116.6 | 110.9 | |
| Electric power..... | 102.4 | 102.4 | 102.5 | 102.3 | 102.4 | 102.5 | 102.4 | 102.2 | 102.3 | 102.3 | 102.4 | 102.1 | 102.1 | 101.9 | 100.8 | |
| Crude petroleum and natural gasoline..... | 127.2 | 127.2 | 127.2 | 127.2 | 127.2 | 127.2 | 126.8 | 126.8 | 126.8 | 126.8 | 126.8 | 126.8 | 126.8 | 126.8 | 127.4 | |
| Petroleum products, refined..... | 115.1 | 116.8 | 117.4 | 117.0 | 115.0 | 117.9 | 121.5 | 121.9 | 121.1 | 119.3 | 119.1 | 119.5 | 119.2 | 115.4 | 114.2 | |
| Chemicals and allied products..... | 108.2 | 108.4 | 108.9 | 109.3 | 109.9 | 110.2 | 110.1 | 110.0 | 109.7 | 110.2 | 110.1 | 110.1 | 110.4 | 110.2 | 109.9 | |
| Industrial chemicals..... | 120.6 | 120.8 | 121.1 | 122.2 | 122.8 | 123.2 | 123.2 | 123.2 | 123.0 | 123.6 | 123.5 | 123.6 | 124.5 | 124.2 | 123.8 | |
| Prepared paint..... | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 131.7 | 130.3 | 128.4 | 128.4 | 128.4 | 128.5 | 128.3 | |
| Paint materials..... | 99.9 | 101.1 | 101.0 | 101.0 | 101.5 | 103.5 | 104.6 | 104.1 | 104.8 | 104.4 | 104.8 | 104.5 | 104.6 | 103.8 | 101.9 | |
| Drugs and pharmaceuticals..... | 91.2 | 91.3 | 92.5 | 92.4 | 92.4 | 92.6 | 92.6 | 92.7 | 92.7 | 92.8 | 92.8 | 93.1 | 93.7 | 93.6 | 93.2 | |
| Fats and oils, inedible..... | 49.3 | 51.1 | 82.2 | 54.1 | 51.4 | 62.1 | 57.7 | 54.7 | 50.2 | 48.5 | 48.9 | 47.8 | 47.7 | 49.0 | 56.7 | |
| Mixed fertilizer..... | 114.4 | 113.6 | 113.0 | 112.3 | 112.3 | 112.3 | 112.3 | 111.9 | 111.6 | 111.8 | 112.1 | 112.9 | 112.9 | 111.0 | 109.5 | |
| Fertilizer materials..... | 110.2 | 110.0 | 111.7 | 112.3 | 112.3 | 112.3 | 112.3 | 112.4 | 112.4 | 111.9 | 111.9 | 111.2 | 109.8 | 109.6 | 106.9 | |
| Other chemicals and allied products..... | 105.3 | 105.3 | 105.8 | 105.8 | 105.8 | 105.6 | 105.6 | 105.5 | 105.4 | 107.2 | 107.4 | 107.3 | 106.7 | 106.7 | 106.6 | |
| Rubber and rubber products..... | 139.6 | 139.4 | 139.0 | 139.6 | 140.2 | 140.1 | 139.9 | 139.6 | 139.7 | 141.2 | 143.6 | 144.7 | 144.7 | 144.7 | 144.5 | |
| Crude rubber..... | 138.9 | 137.9 | 136.2 | 137.4 | 140.8 | 138.2 | 138.0 | 138.2 | 135.7 | 136.5 | 140.3 | 146.6 | 147.7 | 155.7 | 152.0 | |
| Tires and tubes..... | 138.3 | 138.3 | 138.3 | 138.5 | 138.4 | 138.4 | 137.1 | 137.1 | 137.2 | 137.1 | 141.3 | 141.3 | 141.3 | 138.4 | 143.4 | |
| Other rubber products..... | 141.0 | 141.1 | 140.9 | 141.6 | 141.6 | 142.5 | 143.3 | 143.3 | 143.6 | 146.8 | 146.8 | 146.8 | 146.6 | 145.6 | 142.2 | |
| Lumber and wood products..... | 115.5 | 115.9 | 117.2 | 117.8 | 117.6 | 118.0 | 115.4 | 114.7 | 115.7 | 116.5 | 116.9 | 117.7 | 117.8 | 121.3 | 125.8 | |
| Lumber..... | 115.5 | 115.8 | 116.8 | 117.0 | 117.0 | 116.5 | 114.4 | 113.5 | 114.5 | 115.0 | 115.1 | 115.3 | 117.9 | 121.4 | 127.1 | |
| Millwork..... | 130.7 | 130.7 | 132.0 | 134.0 | 133.4 | 134.8 | 134.7 | 134.9 | 135.8 | 135.5 | 135.8 | 135.3 | 135.5 | 136.6 | 135.9 | |
| Plywood..... | 92.9 | 95.3 | 97.2 | 97.2 | 97.2 | 99.1 | 92.0 | 90.8 | 91.7 | 95.1 | 96.1 | 97.1 | 96.4 | 96.1 | 101.2 | |
| Pulp, paper, and allied products..... | 128.6 | 128.3 | 128.4 | 128.5 | 128.1 | 131.0 | 131.5 | 132.2 | 132.2 | 132.3 | 133.1 | 133.4 | 133.0 | 133.2 | 132.2 | |
| Woodpulp..... | 114.4 | 114.4 | 114.4 | 114.4 | 114.4 | 114.4 | 114.5 | 114.5 | 114.5 | 114.5 | 121.2 | 121.2 | 121.2 | 120.6 | 121.2 | |
| Wastepaper..... | 76.6 | 76.6 | 76.6 | 65.0 | 62.1 | 62.1 | 62.1 | 72.4 | 67.8 | 67.8 | 77.4 | 77.4 | 77.4 | 83.7 | 112.5 | |
| Paper..... | 145.3 | 145.9 | 145.9 | 145.9 | 145.4 | 145.4 | 145.7 | 145.7 | 145.7 | 145.7 | 145.7 | 145.7 | 145.4 | 145.4 | 143.4 | |
| Paperboard..... | 122.8 | 122.8 | 123.0 | 128.9 | 128.9 | 129.1 | 129.9 | 130.1 | 132.4 | 132.4 | 132.4 | 135.9 | 135.9 | 135.3 | 136.1 | |
| Converted paper and paperboard products..... | 125.5 | 121.2 | 121.2 | 121.2 | 120.9 | 129.7 | 130.3 | 130.9 | 130.9 | 131.1 | 131.1 | 131.1 | 130.6 | 130.6 | 127.5 | |
| Building paper and board..... | 144.8 | 144.8 | 144.9 | 144.9 | 144.6 | 145.3 | 145.8 | 146.0 | 145.6 | 145.4 | 145.4 | 145.7 | 145.3 | 145.7 | 146.4 | |

See footnotes at end of table.

TABLE D-3. Indexes of wholesale prices,¹ by group and subgroup of commodities—Continued

[1947-49=100, unless otherwise specified]

| Commodity group | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|---|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|------------------|------------------|-------------------|------------------|--|
| | Sept. ² | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 ³ | 1959 | |
| All commodities except farm and foods—Con. | | | | | | | | | | | | | | | | |
| Metals and metal products..... | 153.8 | 153.6 | 153.2 | 153.1 | 153.0 | 152.7 | 152.4 | 152.3 | 152.2 | 152.2 | 152.3 | 152.8 | 153.5 | 153.8 | 153.6 | |
| Iron and steel..... | 170.8 | 170.5 | 170.1 | 170.3 | 170.2 | 170.8 | 170.4 | 169.7 | 169.4 | 168.6 | 168.5 | 168.9 | 169.7 | 170.0 | 172.0 | |
| Nonferrous metals..... | 136.3 | 136.2 | 135.8 | 135.2 | 134.4 | 132.4 | 132.3 | 132.2 | 132.1 | 133.9 | 135.5 | 137.1 | 138.4 | 136.0 | 136.1 | |
| Metal containers..... | 156.6 | 156.6 | 156.6 | 156.6 | 156.6 | 156.6 | 156.6 | 156.6 | 156.6 | 153.6 | 153.6 | 153.6 | 153.6 | 153.9 | 153.7 | |
| Hardware..... | 176.5 | 176.4 | 176.3 | 176.3 | 176.3 | 176.3 | 175.2 | 175.0 | 174.9 | 174.7 | 174.6 | 174.6 | 174.5 | 174.8 | 173.0 | |
| Plumbing fixtures and brass fittings..... | 133.5 | 133.5 | 132.8 | 132.2 | 131.3 | 130.9 | 130.9 | 130.9 | 130.9 | 130.8 | 130.8 | 130.8 | 131.5 | 132.1 | 130.1 | |
| Heating equipment..... | 115.2 | 115.6 | 115.5 | 115.4 | 115.4 | 115.2 | 114.5 | 114.8 | 114.9 | 116.8 | 118.4 | 119.3 | 119.3 | 119.4 | 121.7 | |
| Fabricated structural metal products..... | 132.2 | 132.3 | 132.3 | 132.1 | 132.4 | 132.8 | 132.8 | 133.5 | 133.6 | 133.9 | 133.9 | 134.0 | 134.2 | 134.7 | 133.4 | |
| Fabricated nonstructural metal products..... | 150.8 | 150.4 | 149.2 | 149.0 | 150.0 | 150.1 | 149.6 | 149.6 | 149.5 | 148.6 | 146.7 | 146.2 | 146.2 | 146.4 | 146.0 | |
| Machinery and motive products..... | 152.7 | 152.7 | 153.0 | 153.2 | 153.1 | 153.1 | 153.4 | 153.4 | 153.5 | 153.1 | 153.0 | 152.9 | 151.4 | 153.4 | 153.0 | |
| Agricultural machinery and equipment..... | 148.7 | 148.9 | 148.8 | 148.8 | 148.6 | 148.6 | 148.5 | 148.5 | 148.5 | 148.0 | 148.2 | 146.7 | 146.2 | 146.1 | 143.4 | |
| Construction machinery and equipment..... | 178.5 | 178.5 | 178.3 | 178.2 | 178.5 | 178.6 | 178.2 | 178.2 | 177.6 | 177.0 | 177.3 | 176.7 | 176.7 | 176.6 | 171.9 | |
| Metalworking machinery and equipment..... | 182.1 | 181.7 | 181.7 | 181.5 | 181.7 | 181.8 | 183.3 | 182.7 | 182.7 | 182.3 | 182.1 | 181.2 | 181.0 | 179.9 | 174.5 | |
| General purpose machinery and equipment..... | 166.4 | 166.3 | 166.5 | 166.5 | 166.3 | 166.2 | 166.1 | 166.2 | 166.1 | 166.1 | 166.3 | 166.5 | 166.9 | 167.1 | 163.3 | |
| Miscellaneous machinery..... | 132.0 | 132.0 | 131.8 | 131.4 | 131.4 | 131.4 | 131.2 | 131.2 | 131.3 | 130.9 | 130.7 | 130.4 | 130.2 | 130.2 | 149.4 | |
| Special industry machinery and equipment..... | 100.7 | 100.5 | 100.5 | 100.5 | 100.4 | 100.3 | 100.1 | 100.0 | 100.0 | 100.1 | (⁴) | (⁴) | (⁴) | (⁴) | (⁴) | |
| Electrical machinery and equipment..... | 150.4 | 150.5 | 151.8 | 151.7 | 151.7 | 151.9 | 153.5 | 153.6 | 153.7 | 152.4 | 152.4 | 152.6 | 152.7 | 154.2 | 154.4 | |
| Motor vehicles..... | 140.3 | 140.5 | 140.5 | 140.4 | 140.3 | 140.3 | 140.2 | 140.4 | 140.8 | 140.7 | 140.5 | 140.3 | 135.4 | 140.8 | 142.8 | |
| Transportation equipment, railroad rolling stock..... | 100.3 | 100.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁴) | (⁴) | (⁴) | (⁴) | (⁴) | |
| Furniture and other household durables..... | 122.2 | 122.1 | 122.3 | 122.4 | 122.4 | 122.5 | 122.2 | 122.2 | 122.3 | 122.6 | 122.6 | 122.7 | 122.8 | 123.1 | 123.4 | |
| Household furniture..... | 126.6 | 126.4 | 126.4 | 126.4 | 126.4 | 126.3 | 126.2 | 126.2 | 126.1 | 125.7 | 125.7 | 125.6 | 125.0 | 125.1 | 124.1 | |
| Commercial furniture..... | 156.7 | 155.9 | 155.9 | 155.9 | 155.9 | 155.9 | 155.9 | 155.9 | 155.9 | 157.1 | 157.1 | 157.1 | 157.1 | 156.8 | 155.2 | |
| Floor coverings..... | 129.7 | 129.7 | 129.7 | 128.6 | 128.6 | 128.6 | 128.6 | 128.6 | 128.7 | 130.2 | 130.2 | 130.5 | 130.5 | 130.4 | 128.1 | |
| Household appliances..... | 99.8 | 99.8 | 99.8 | 99.8 | 99.9 | 100.0 | 100.0 | 100.2 | 100.2 | 100.4 | 100.6 | 100.9 | 100.9 | 101.9 | 104.7 | |
| Television, radio receivers, and phonographs..... | 88.3 | 88.7 | 90.0 | 90.0 | 89.8 | 90.7 | 90.7 | 90.5 | 90.9 | 91.2 | 90.5 | 90.5 | 91.1 | 91.3 | 92.8 | |
| Other household durable goods..... | 157.2 | 157.2 | 156.9 | 157.8 | 157.8 | 157.5 | 156.0 | 156.0 | 156.2 | 156.6 | 156.6 | 156.8 | 157.6 | 157.4 | 155.4 | |
| Nonmetallic mineral products..... | 138.5 | 138.5 | 138.4 | 138.3 | 138.5 | 138.6 | 138.6 | 138.4 | 138.5 | 137.9 | 137.9 | 138.1 | 138.0 | 138.0 | 137.7 | |
| Flat glass..... | 130.3 | 130.3 | 130.3 | 130.3 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.7 | 135.3 | |
| Concrete ingredients..... | 142.4 | 142.4 | 142.6 | 142.6 | 142.6 | 142.6 | 142.6 | 142.3 | 142.2 | 142.0 | 142.1 | 142.1 | 142.2 | 142.1 | 140.3 | |
| Concrete products..... | 131.4 | 131.3 | 131.3 | 131.3 | 131.3 | 131.3 | 131.1 | 131.2 | 131.1 | 131.0 | 131.0 | 131.0 | 131.0 | 131.1 | 129.7 | |
| Structural clay products..... | 161.9 | 161.7 | 161.6 | 161.6 | 161.5 | 162.1 | 162.1 | 162.1 | 162.1 | 162.3 | 162.3 | 162.2 | 162.1 | 161.8 | 160.2 | |
| Gypsum products..... | 137.3 | 137.3 | 134.6 | 134.6 | 134.6 | 134.6 | 134.6 | 134.6 | 134.6 | 133.2 | 133.2 | 133.2 | 133.2 | 133.2 | 133.1 | |
| Prepared asphalt roofing..... | 114.2 | 114.2 | 114.2 | 112.9 | 112.9 | 114.2 | 114.2 | 114.2 | 114.2 | 106.6 | 106.6 | 106.6 | 106.6 | 107.3 | 113.4 | |
| Other nonmetallic minerals..... | 133.5 | 133.7 | 133.7 | 133.7 | 133.7 | 133.7 | 133.6 | 132.9 | 133.5 | 133.6 | 133.6 | 133.0 | 134.5 | 134.2 | 132.4 | |
| Tobacco products and bottled beverages..... | 133.4 | 132.8 | 132.6 | 132.1 | 132.1 | 132.0 | 132.1 | 132.1 | 132.1 | 132.1 | 132.0 | 132.0 | 132.0 | 131.8 | 131.4 | |
| Tobacco products..... | 130.9 | 130.9 | 130.9 | 130.9 | 130.9 | 130.8 | 130.8 | 130.8 | 130.8 | 130.8 | 130.8 | 130.8 | 130.8 | 130.8 | 130.5 | |
| Alcoholic beverages..... | 121.2 | 121.1 | 121.1 | 121.2 | 121.2 | 121.1 | 121.3 | 121.3 | 121.2 | 121.2 | 121.1 | 121.1 | 121.1 | 120.8 | 121.3 | |
| Nonalcoholic beverages..... | 180.5 | 176.3 | 174.8 | 171.6 | 171.6 | 171.6 | 171.6 | 171.6 | 171.6 | 171.6 | 171.4 | 171.4 | 171.4 | 171.3 | 167.4 | |
| Miscellaneous products..... | 96.6 | 95.6 | 95.6 | 95.9 | 95.5 | 97.7 | 96.8 | 96.2 | 95.6 | 92.4 | 90.6 | 90.3 | 91.1 | 92.1 | 94.5 | |
| Toys, sporting goods, small arms, ammunition..... | 119.6 | 119.7 | 119.0 | 118.9 | 118.9 | 119.0 | 118.9 | 118.3 | 118.4 | 118.6 | 118.6 | 118.6 | 118.6 | 118.3 | 117.5 | |
| Manufactured animal feeds..... | 74.2 | 74.3 | 74.6 | 75.0 | 80.3 | 77.5 | 75.2 | 74.1 | 74.6 | 70.0 | 66.8 | 65.2 | 67.7 | 69.6 | 75.1 | |
| Notions and accessories..... | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.4 | 96.9 | 97.3 | |
| Jewelry, watches, and photographic equipment..... | 111.9 | 111.7 | 111.0 | 111.0 | 111.0 | 111.2 | 111.3 | 111.3 | 111.2 | 111.0 | 110.9 | 110.9 | 110.9 | 110.7 | 108.3 | |
| Other miscellaneous products..... | 132.3 | 132.6 | 131.8 | 132.2 | 131.4 | 131.7 | 132.3 | 132.8 | 132.8 | 132.4 | 132.1 | 132.6 | 132.5 | 132.2 | 132.2 | |

¹ As of January 1961, new weights reflecting 1958 values were introduced into the index. Technical details furnished upon request to the Bureau.

² Preliminary.

³ Revised.

⁴ Formerly titled Fuel, power, and lighting materials.

⁵ January 1958=100.

⁶ New series. January 1961=100.

⁷ Formerly titled Nonmetallic minerals—structural.

TABLE D-4. Indexes of wholesale prices for special commodity groupings¹

(1947-49=100)

| Commodity group | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|---|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------------------|------------------|------------------|-------------------|------------------|--|
| | Sept. ¹ | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 ² | 1959 | |
| All foods..... | 105.4 | *105.8 | 105.6 | 104.2 | 104.7 | 105.8 | 107.5 | 108.0 | 107.5 | 107.3 | 108.8 | 108.5 | 106.6 | 106.0 | 104.4 | |
| All fish..... | 136.9 | 137.1 | 129.2 | 129.5 | 128.6 | 126.2 | 132.0 | 133.3 | 131.3 | 133.2 | 131.5 | 129.4 | 128.1 | 126.7 | 124.5 | |
| All commodities except farm products..... | 124.0 | 124.0 | 123.9 | 123.8 | 124.0 | 124.6 | 124.9 | 125.0 | 124.9 | 124.6 | 124.6 | 124.6 | 124.4 | 124.7 | 124.5 | |
| Textile products, excluding hard fiber products..... | 88.9 | 88.6 | 88.1 | 88.1 | 88.4 | 88.4 | 88.7 | 89.2 | 89.5 | 90.0 | 90.5 | 91.2 | 91.6 | 92.2 | 91.4 | |
| Refined petroleum products: ⁴ | | | | | | | | | | | | | | | | |
| East Coast petroleum products, refined..... | 114.6 | 114.6 | 113.4 | 113.4 | 113.4 | 114.8 | 116.1 | 116.6 | 114.3 | 111.4 | 111.4 | 112.4 | 111.4 | 111.0 | 108.9 | |
| Midcontinent petroleum products, refined..... | 108.2 | 115.0 | 121.7 | 121.7 | 116.0 | 124.2 | 125.3 | 126.0 | 126.0 | 126.2 | 124.7 | 124.7 | 124.7 | 117.0 | 115.7 | |
| Gulf Coast petroleum products, refined..... | 122.2 | 122.2 | 121.3 | 119.8 | 119.5 | 122.1 | 127.3 | 127.3 | 125.6 | 122.9 | 122.9 | 122.9 | 122.9 | 120.4 | 118.4 | |
| Pacific Coast petroleum products, refined..... | 108.5 | 110.1 | 107.0 | 107.9 | 109.1 | 104.3 | 105.5 | 106.1 | 107.3 | 105.5 | 105.5 | 107.3 | 106.0 | 105.8 | 108.2 | |
| Midwest petroleum products, refined..... | 91.3 | 92.6 | 93.9 | 93.9 | 88.7 | 93.5 | 99.3 | 99.9 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Bituminous coal—domestic sizes..... | 123.1 | 121.7 | 120.1 | 118.3 | 117.3 | 117.7 | 126.4 | 127.9 | 127.9 | 127.7 | 127.4 | 126.2 | 126.1 | 124.7 | 124.9 | |
| Soaps..... | 109.6 | *109.6 | *109.6 | *109.7 | *109.6 | *107.5 | *107.5 | *107.4 | *107.4 | 107.6 | 107.6 | 107.6 | 107.6 | 107.6 | 109.5 | |
| Synthetic detergents..... | 100.3 | *100.3 | 102.0 | 102.0 | 102.0 | 102.0 | 102.0 | 102.0 | 102.0 | 102.0 | 102.9 | 103.6 | 101.2 | 101.7 | 101.4 | |
| Pharmaceutical preparations..... | 100.8 | *100.8 | 102.2 | 102.1 | 102.1 | 102.0 | 102.0 | 102.2 | 102.1 | 102.1 | 102.1 | 102.1 | 103.0 | 103.3 | 103.0 | |
| Ethical preparations ¹ | 98.0 | *98.0 | 100.1 | 99.9 | 99.9 | 99.9 | 99.9 | 100.1 | 100.0 | 100.1 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Anti-infectives ¹ | 98.9 | 98.9 | 98.9 | 99.0 | 99.0 | 99.0 | 99.0 | 100.0 | 100.0 | 100.1 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Anti-arthritics ¹ | 100.6 | 100.6 | 100.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Sedatives and hypnotics ¹ | 101.9 | 101.9 | 101.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Ataractics ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Anti-spasmodics and anti-cholinergics ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Cardiovascular and anti-hypertensives ¹ | 100.9 | 100.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Diabetics ¹ | 103.8 | 103.8 | 103.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Hormones ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Diuretics ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Dermatologicals ¹ | 100.5 | 100.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Hermatincs ¹ | 108.5 | 108.5 | 108.5 | 104.5 | 104.5 | 104.5 | 104.5 | 104.5 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Analgesics ¹ | 101.8 | 101.8 | 101.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Anti-obesity preparations ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Cough and cold preparations ¹ | 98.8 | 98.8 | 98.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Vitamins ¹ | 88.1 | *88.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.4 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Proprietary preparations ¹ | 100.1 | 100.1 | 100.1 | 100.2 | 100.2 | 100.0 | 100.0 | 100.0 | 100.0 | 99.8 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Vitamins ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Cough and cold preparations ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Laxatives and elimination aids ¹ | 99.5 | 99.5 | 99.5 | 100.5 | 100.5 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Internal analgesics ¹ | 100.6 | 100.6 | 100.6 | 100.3 | 100.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Tonics and alteratives ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 97.8 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| External analgesics ¹ | 100.2 | 99.7 | 99.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.3 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Antiseptics ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Antiacids ¹ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | (⁵) | (⁵) | (⁵) | (⁵) | (⁵) | |
| Lumber and wood products (excluding millwork)..... | 113.5 | *114.0 | 115.3 | 115.4 | 115.4 | 115.6 | 112.1 | 111.1 | 112.1 | 113.3 | 113.7 | 114.8 | 116.0 | 118.9 | 124.5 | |
| Softwood lumber..... | 114.6 | *114.9 | 115.9 | 116.1 | 116.1 | 115.6 | 113.0 | 111.6 | 112.4 | 112.7 | 112.8 | 114.1 | 116.0 | 120.4 | 128.1 | |
| Pulp, paper, and products (excluding building paper)..... | 128.1 | 125.8 | 125.8 | 126.0 | 125.6 | 130.6 | 131.1 | 131.8 | 131.9 | 132.0 | 132.6 | 133.1 | 132.7 | 132.9 | 131.8 | |
| Special metals and metal products..... | 150.4 | 150.4 | 150.1 | 150.1 | 149.9 | 149.7 | 149.5 | 149.5 | 149.5 | 149.5 | 149.5 | 149.7 | 148.7 | 150.5 | 150.8 | |
| Steel mill products..... | 180.9 | *180.9 | 187.0 | 187.0 | 187.5 | 187.5 | 187.6 | 187.6 | 187.6 | 187.6 | 187.6 | 187.6 | 187.6 | 187.9 | 188.2 | |
| Machinery and equipment..... | 159.1 | 159.1 | 159.6 | 159.5 | 159.5 | 159.6 | 160.3 | 160.2 | 160.2 | 159.6 | 159.6 | 159.4 | 159.5 | 160.0 | 158.5 | |
| Agricultural machinery (including tractors)..... | 150.7 | 150.8 | 150.8 | 150.8 | 150.5 | 150.5 | 150.5 | 150.4 | 150.4 | 150.4 | 150.3 | 148.6 | 148.0 | 147.9 | 144.8 | |
| Metalworking machinery..... | 190.6 | 190.0 | 189.9 | 189.5 | 189.5 | 189.5 | 189.2 | 189.9 | 189.9 | 189.6 | 189.3 | 188.0 | 187.7 | 186.7 | 181.5 | |
| Total tractors..... | 150.3 | 150.3 | 150.1 | 150.0 | 150.0 | 150.2 | 150.2 | 150.2 | 150.2 | 150.1 | 150.9 | 150.9 | 150.9 | 150.4 | 153.3 | |
| Industrial valves..... | 200.8 | 201.9 | 202.3 | 202.5 | 202.5 | 202.5 | 202.1 | 201.1 | 201.6 | 201.2 | 201.2 | 202.5 | 206.5 | 205.1 | 196.9 | |
| Industrial fittings..... | 122.4 | 121.7 | 121.7 | 121.7 | 121.7 | 121.7 | 122.0 | 121.4 | 121.7 | 121.7 | 122.4 | 122.5 | 132.2 | 132.9 | 139.0 | |
| Machinery and equipment components..... | 131.8 | 130.5 | 130.6 | 130.6 | 130.6 | 130.6 | 131.4 | 131.4 | 131.4 | 131.4 | 132.9 | 132.9 | 132.9 | 133.6 | 136.1 | |
| Abrasive grinding wheels..... | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 146.9 | 147.6 | 147.6 | 147.6 | 147.5 | 152.5 | |
| Construction materials..... | 130.1 | *130.1 | 130.5 | 130.5 | 130.6 | 130.7 | 129.9 | 129.8 | 130.1 | 130.0 | 130.3 | 130.5 | 131.1 | 132.6 | 134.6 | |

¹ See footnote 1, table D-3.² Preliminary.³ Revised.⁴ The new special index for refined petroleum products is now being published as a subgroup index in table D-3.⁵ New series. January 1961=100.

TABLE D-5. Indexes of wholesale prices,¹ by stage of processing and durability of product

[1947-49=100]

| Commodity group | 1961 | | | | | | | | | | 1960 | | | | Annual average | |
|---|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|----------------|--|
| | Sept. ³ | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | 1960 ¹ | 1959 | |
| All commodities..... | 118.8 | 118.9 | 118.6 | 118.2 | 118.7 | 119.4 | 119.9 | 120.0 | 119.9 | 119.5 | 119.6 | 119.6 | 119.2 | 119.6 | 119.5 | |
| Stage of processing | | | | | | | | | | | | | | | | |
| Crude materials for further processing..... | 93.8 | 94.8 | 92.7 | 91.6 | 93.2 | 94.6 | 95.2 | 95.1 | 94.7 | 93.3 | 93.0 | 93.3 | 92.9 | 94.5 | 96.7 | |
| Crude foodstuffs and feedstuffs..... | 83.4 | 85.1 | 82.6 | 81.5 | 83.6 | 85.7 | 86.9 | 87.0 | 87.3 | 85.5 | 85.1 | 85.1 | 83.9 | 85.7 | 86.8 | |
| Crude nonfood materials except fuel..... | 111.3 | 110.6 | 109.2 | 108.5 | 108.7 | 108.6 | 107.2 | 105.4 | 104.4 | 104.1 | 104.1 | 104.8 | 106.1 | 107.5 | 112.2 | |
| Crude nonfood materials, except fuel, for manufacturing..... | 100.6 | 108.9 | 107.4 | 106.7 | 106.9 | 106.7 | 105.2 | 103.3 | 102.2 | 101.8 | 101.8 | 102.7 | 104.0 | 105.5 | 110.8 | |
| Crude nonfood materials, except fuel, for construction..... | 142.4 | 142.4 | 142.6 | 142.6 | 142.6 | 142.6 | 142.3 | 142.2 | 142.0 | 142.1 | 142.1 | 142.2 | 142.1 | 142.1 | 140.8 | |
| Crude fuel..... | 123.2 | 122.6 | 121.9 | 121.2 | 122.3 | 123.3 | 126.8 | 127.4 | 126.9 | 126.3 | 126.2 | 126.0 | 126.1 | 124.4 | 123.4 | |
| Crude fuel for manufacturing..... | 122.8 | 122.2 | 121.5 | 120.9 | 121.9 | 122.7 | 126.2 | 126.8 | 126.3 | 125.8 | 125.7 | 125.6 | 125.6 | 123.9 | 122.9 | |
| Crude fuel for nonmanufacturing..... | 123.9 | 123.2 | 122.5 | 121.8 | 123.0 | 124.2 | 127.7 | 128.2 | 127.7 | 127.1 | 127.0 | 126.9 | 127.0 | 125.2 | 124.1 | |
| Intermediate materials, supplies, and components..... | 125.6 | 125.5 | 125.6 | 125.8 | 126.3 | 126.9 | 126.9 | 126.7 | 126.7 | 126.4 | 126.5 | 126.6 | 126.8 | 127.0 | 127.0 | |
| Intermediate materials and components for manufacturing..... | 127.0 | 127.1 | 127.1 | 127.4 | 127.8 | 127.9 | 127.9 | 127.8 | 127.8 | 127.9 | 128.1 | 128.4 | 128.6 | 128.9 | 129.0 | |
| Intermediate materials for food manufacturing..... | 101.4 | 101.4 | 101.6 | 102.0 | 103.0 | 103.7 | 103.9 | 103.6 | 102.4 | 101.3 | 101.7 | 100.7 | 100.0 | 99.3 | 98.5 | |
| Intermediate materials for nondurable manufacturing..... | 103.6 | 103.7 | 103.6 | 104.1 | 104.5 | 104.8 | 104.8 | 104.8 | 104.9 | 105.2 | 105.5 | 105.9 | 106.2 | 106.4 | 106.4 | |
| Intermediate materials for durable manufacturing..... | 156.4 | 156.4 | 156.2 | 156.0 | 156.0 | 158.6 | 155.4 | 155.4 | 155.5 | 156.6 | 156.7 | 157.2 | 157.7 | 158.1 | 157.9 | |
| Components for manufacturing..... | 148.4 | 148.5 | 149.1 | 149.1 | 149.2 | 149.3 | 150.0 | 150.1 | 150.0 | 149.3 | 149.5 | 149.8 | 149.8 | 150.7 | 151.5 | |
| Materials and components for construction..... | 133.5 | 133.6 | 134.0 | 134.1 | 134.1 | 134.3 | 133.5 | 133.5 | 133.7 | 133.7 | 133.9 | 134.2 | 134.6 | 135.6 | 136.5 | |
| Processed fuels and lubricants..... | 109.2 | 110.0 | 110.5 | 110.2 | 109.4 | 110.3 | 111.9 | 111.9 | 111.9 | 111.8 | 111.5 | 111.7 | 111.4 | 108.9 | 106.0 | |
| Processed fuels and lubricants for manufacturing..... | 109.4 | 110.0 | 110.3 | 110.1 | 109.6 | 110.3 | 111.6 | 111.6 | 111.5 | 111.3 | 111.3 | 111.3 | 111.0 | 108.9 | 105.6 | |
| Processed fuels and lubricants for nonmanufacturing..... | 108.9 | 110.1 | 110.9 | 110.6 | 109.1 | 110.4 | 112.5 | 112.5 | 112.7 | 112.3 | 112.3 | 112.4 | 112.1 | 109.1 | 106.8 | |
| Containers, nonreturnable..... | 136.3 | 133.3 | 133.3 | 133.1 | 133.7 | 139.9 | 140.6 | 141.1 | 140.9 | 139.4 | 139.3 | 139.2 | 138.5 | 138.6 | 136.7 | |
| Supplies..... | 116.5 | 115.6 | 115.8 | 115.9 | 115.3 | 119.2 | 118.7 | 117.6 | 117.8 | 116.1 | 115.2 | 115.1 | 115.4 | 115.8 | 116.6 | |
| Supplies for manufacturing..... | 147.1 | 147.1 | 147.2 | 147.6 | 147.6 | 148.1 | 149.0 | 148.4 | 148.6 | 149.6 | 149.8 | 149.8 | 149.7 | 149.3 | 143.5 | |
| Supplies for nonmanufacturing..... | 102.5 | 101.4 | 101.6 | 101.7 | 104.7 | 105.6 | 104.8 | 103.6 | 103.7 | 101.2 | 100.1 | 99.9 | 100.3 | 101.0 | 104.1 | |
| Manufactured animal feeds..... | 68.4 | 68.3 | 68.7 | 69.2 | 74.8 | 72.3 | 70.7 | 68.3 | 68.9 | 64.2 | 61.0 | 60.1 | 61.7 | 63.8 | 74.7 | |
| Other supplies..... | 121.4 | 119.5 | 119.4 | 119.2 | 119.5 | 123.5 | 123.4 | 123.4 | 123.2 | 123.0 | 123.1 | 123.2 | 123.0 | 122.9 | 121.3 | |
| Finished goods (goods to users, including raw foods and fuels)..... | 121.2 | 121.4 | 121.2 | 120.6 | 120.7 | 121.3 | 122.2 | 122.6 | 122.4 | 122.2 | 122.7 | 122.4 | 121.5 | 121.5 | 120.6 | |
| Consumer finished goods..... | 113.2 | 113.3 | 113.1 | 112.4 | 112.5 | 113.3 | 114.3 | 114.8 | 114.5 | 114.4 | 114.9 | 114.7 | 113.7 | 113.7 | 112.5 | |
| Consumer foods..... | 106.9 | 107.2 | 106.8 | 105.0 | 105.7 | 106.5 | 108.6 | 109.5 | 109.1 | 109.0 | 110.4 | 110.1 | 108.2 | 107.7 | 105.5 | |
| Consumer crude foods..... | 92.8 | 94.8 | 95.7 | 90.5 | 89.9 | 90.6 | 97.2 | 96.8 | 96.8 | 96.6 | 100.1 | 106.6 | 100.3 | 98.0 | 91.9 | |
| Consumer processed foods..... | 109.8 | 109.8 | 109.1 | 108.0 | 108.9 | 110.1 | 111.0 | 112.1 | 111.7 | 111.0 | 110.8 | 110.9 | 110.0 | 109.7 | 108.4 | |
| Consumer other nondurable goods..... | 113.9 | 114.0 | 113.9 | 113.8 | 113.5 | 114.2 | 115.0 | 115.2 | 114.9 | 114.7 | 114.7 | 114.8 | 114.8 | 114.1 | 113.4 | |
| Consumer durable goods..... | 125.6 | 125.6 | 125.6 | 125.6 | 125.5 | 125.5 | 125.5 | 125.6 | 125.8 | 125.8 | 125.8 | 125.7 | 123.6 | 126.1 | 126.5 | |
| Producer finished goods..... | 153.9 | 153.8 | 153.8 | 153.9 | 153.7 | 153.7 | 153.8 | 153.9 | 154.0 | 153.8 | 153.6 | 153.4 | 152.5 | 153.8 | 153.2 | |
| Producer finished goods for manufacturing..... | 160.6 | 160.6 | 160.6 | 160.7 | 160.6 | 160.6 | 160.6 | 160.8 | 160.8 | 160.8 | 160.8 | 160.8 | 159.2 | 160.0 | 158.1 | |
| Producer finished goods for nonmanufacturing..... | 147.8 | 147.8 | 147.9 | 147.9 | 147.7 | 147.6 | 147.9 | 147.9 | 148.1 | 147.8 | 147.7 | 147.6 | 146.6 | 148.4 | 149.1 | |
| Durability of product | | | | | | | | | | | | | | | | |
| Total durable goods..... | 145.2 | 145.2 | 145.3 | 145.4 | 145.3 | 145.3 | 145.1 | 145.0 | 145.1 | 145.0 | 145.0 | 144.9 | 144.5 | 145.7 | 146.9 | |
| Total nondurable goods..... | 104.4 | 104.6 | 104.2 | 103.5 | 104.3 | 105.3 | 106.2 | 106.3 | 106.1 | 106.6 | 105.5 | 105.8 | 105.3 | 105.3 | 105.0 | |
| Total manufactures..... | 125.0 | 124.9 | 124.9 | 124.8 | 125.1 | 125.7 | 126.0 | 126.1 | 126.1 | 125.7 | 125.7 | 125.7 | 125.5 | 125.8 | 125.5 | |
| Durable manufactures..... | 146.3 | 146.3 | 146.4 | 146.5 | 146.5 | 146.5 | 146.3 | 146.3 | 146.5 | 146.4 | 146.4 | 146.3 | 145.8 | 147.0 | 147.0 | |
| Nondurable manufactures..... | 108.2 | 108.1 | 107.9 | 107.7 | 108.3 | 109.3 | 109.9 | 110.1 | 109.9 | 109.4 | 109.3 | 109.5 | 109.2 | 108.9 | 108.5 | |
| Total raw or slightly processed goods..... | 97.8 | 98.6 | 97.3 | 95.8 | 97.0 | 98.0 | 99.3 | 99.3 | 98.9 | 98.3 | 99.1 | 98.9 | 98.0 | 98.6 | 98.9 | |
| Durable raw or slightly processed goods..... | 114.2 | 112.7 | 110.8 | 111.9 | 109.7 | 110.7 | 108.6 | 105.1 | 103.5 | 101.8 | 101.4 | 102.9 | 107.4 | 107.4 | 114.1 | |
| Nondurable raw or slightly processed goods..... | 97.0 | 97.9 | 96.5 | 95.0 | 96.3 | 97.4 | 98.5 | 99.0 | 98.6 | 98.1 | 99.0 | 98.7 | 97.4 | 98.1 | 98.1 | |

¹ See footnote 1, table D-3.² Preliminary.³ Revised.

NOTE: For description of the series by stage of processing, see New BLS Economic Sector Indexes of Wholesale Prices (in Monthly Labor Review, December 1955, pp. 1445-1453); and by durability of product and data beginning with 1947, see Wholesale Prices and Price Indexes, 1957, BLS Bull. 1235 (1958).

E.—Work Stoppages

TABLE E-1. Work stoppages resulting from labor-management disputes ¹

| Month and year | Number of stoppages | | Workers involved in stoppages | | Man-days idle during month or year | |
|----------------------------------|----------------------------|------------------------|-------------------------------|------------------------|------------------------------------|-----------------------------------|
| | Beginning in month or year | In effect during month | Beginning in month or year | In effect during month | Number | Percent of estimated working time |
| 1935-39 (average)..... | 2,862 | | 1,130,000 | | 16,900,000 | 0.27 |
| 1947-49 (average)..... | 3,573 | | 2,380,000 | | 39,700,000 | .46 |
| 1945..... | 4,750 | | 3,470,000 | | 58,000,000 | .47 |
| 1946..... | 4,985 | | 4,600,000 | | 116,000,000 | 1.43 |
| 1947..... | 3,693 | | 2,170,000 | | 34,600,000 | .41 |
| 1948..... | 3,419 | | 1,900,000 | | 34,100,000 | .37 |
| 1949..... | 3,556 | | 2,030,000 | | 50,500,000 | .59 |
| 1950..... | 4,543 | | 2,410,000 | | 38,800,000 | .44 |
| 1951..... | 4,737 | | 2,220,000 | | 22,900,000 | .23 |
| 1952..... | 5,117 | | 3,540,000 | | 59,100,000 | .57 |
| 1953..... | 5,091 | | 2,400,000 | | 28,300,000 | .26 |
| 1954..... | 3,468 | | 1,530,000 | | 22,600,000 | .21 |
| 1955..... | 4,320 | | 2,650,000 | | 25,200,000 | .26 |
| 1956..... | 3,825 | | 1,900,000 | | 33,100,000 | .29 |
| 1957..... | 3,673 | | 1,380,000 | | 16,500,000 | .14 |
| 1958..... | 3,604 | | 2,090,000 | | 23,900,000 | .22 |
| 1959..... | 3,708 | | 1,880,000 | | 69,000,000 | .61 |
| 1960..... | 3,333 | | 1,320,000 | | 19,100,000 | .17 |
| 1960 September..... | 271 | 500 | 131,000 | 209,000 | 1,660,000 | .17 |
| October..... | 258 | 432 | 105,000 | 146,000 | 1,500,000 | .16 |
| November..... | 192 | 368 | 53,300 | 85,000 | 732,000 | .08 |
| December..... | 110 | 250 | 27,500 | 53,200 | 458,000 | .05 |
| 1961: January ² | 170 | 300 | 80,000 | 100,000 | 700,000 | .08 |
| February ² | 210 | 330 | 120,000 | 130,000 | 940,000 | .11 |
| March ² | 220 | 350 | 55,000 | 75,000 | 610,000 | .06 |
| April ² | 320 | 480 | 94,000 | 126,000 | 1,180,000 | .14 |
| May ² | 430 | 620 | 120,000 | 165,000 | 1,530,000 | .16 |
| June ² | 330 | 570 | 140,000 | 211,000 | 1,760,000 | .18 |
| July ² | 330 | 560 | 95,000 | 183,000 | 1,690,000 | .19 |
| August ² | 325 | 550 | 95,000 | 160,000 | 1,320,000 | .13 |
| September ² | 310 | 530 | 334,000 | 390,000 | 3,150,000 | .35 |

¹ The data include all known strikes or lockouts involving 6 or more workers and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in a stoppage. They do not measure the indirect

or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

³ Revised preliminary.

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